Power efficiency for a cooler planet

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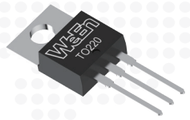
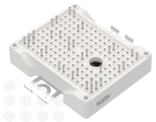
WeEn Semiconductors

PRODUCT SELECTION GUIDE

WeEn Semiconductors; spun off from NXP; over 50 years' leading experience in the power segment





1969

PHILIPS

High Voltage Transistors (HVT)
Fast, Ultrafast & Hyperfast Power Diodes
Bipolar 4-Quadrant Triacs

2006

NXP

Super Advanced Best Efficiency Rectifier Diodes (SABER)
Gen1 Schottky Barrier Diodes

2015

WeEn

Gen 1 SiC Schottky Barrier Diode
Enhanced Efficiency Pt Planar Diodes (EEPP)
Gen 2 Schottky Barrier Diodes
High Voltage SCRs

2019

Auto Grade SiC Schottky Barrier Diode
Standard Power Diodes
Automotive SCRs
1600V Planar SCRs

2021

Gen 1 SiC MOSFETs
Gen 6 SiC Schottky Barrier Diode
Gen 3 Schottky Barrier Diodes
Gen 4 600V/650V FRD
IGBT
TVS/ESD

2022

Si-MOSFET
Automotive Power Diodes
Gen 2 SiC MOSFETs

2023

Auto Grade SiC MOSFETs
SiC MOSFET Power Modules
Thyristors Power Modules
IGBT Power Modules
G2 1200V IGBT

WeEn Semiconductors Company Introduction

WeEn Semiconductors Co., Ltd was registered as a company on Aug 5, 2015 since span off from NXP. WeEn's global footprint has an operational headquarters in Shanghai and wholly owned subsidiaries and centers in Jilin & Hongkong, north east China (Front-End Fabrication) Shanghai and Manchester, UK (Research & Development) , Nanchang (Reliability and Failure Analysis Laboratory), Dongguan(Warehouse and Distribution), and cities throughout the world (Sales Offices and Customer Service Access).

In July, 2023, WeEn first global module plant officially commences operations in the Shanghai Bay Area High-tech Industrial Development Zone.

With a heritage of over 50 years in semiconductor development and manufacturing, WeEn as a key player has focused on developing a wide and deep portfolio of industry-leading power products including Silicon Carbide Power Devices, Silicon Controlled Rectifiers and Triacs, standard and fast recovery Power Diodes , IGBTs, TVS and ESD protection Devices, Si MOSFETs and modules.

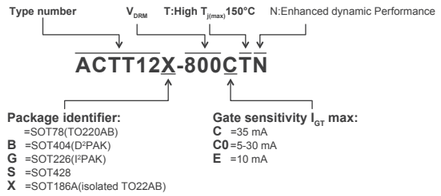
All these products are widely used in the markets for automotive, renewable energy, telecommunications, computers, consumer electronics, intelligent home appliances, lighting, and power management applications. WeEn seeks to help our customers achieve improved cost and production efficiency and contribute to the development of global intelligent manufacturing.

CONTENTS

WeEn
WeEn Semiconductors

01
Thyristors

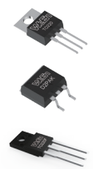
AC Thyristor Triacs part numbering



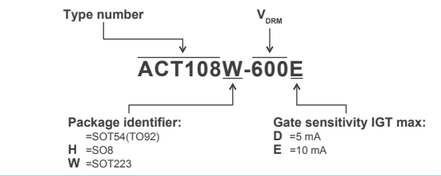
In the spotlight

AC Thyristor Triacs ACTT10 series, ACTT12 series

- Planar passivated with overvoltage clamping function
- High energy surge handling
- Very high dV_D/dt for maximum immunity to false triggering
- High Tj(max) to 150°C



AC Thyristors part numbering



In the spotlight

AC Thyristors ACT108-800E, ACT108W-800E

- Planar passivated with overvoltage clamping function
- Working voltage increased to 800V
- Enhanced overvoltage clamping capability
- High false trigger immunity

In the spotlight

TOPTriac TOPT12, TOPT16

- Planar passivated for voltage ruggedness & reliability
- Over temperature & over load protection
- No need to over-specify triac and heatsink
- Avoid loss of control at high temperature
- Status monitoring with help of microcontroller

AC THYRISTOR TRIACS

3Q Hi-Com power switches, overvoltage protection

Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development
N: enhanced Noise immunity T: high $T_j$max 150°C

I_{GT} key:
C 35mA
C0 5-30mA
E 10mA

$I_{T(RMS)}$ (A)	V_{DRM} (V)	I_{GT}(max) (mA)	SOT223 SC-73	TO-252 SOT428 DPAK	TO-263 SOT404 D²PAK	TO262 SOT226A I²PAK	TO-220 SOT78	TO-220F SOT186A SC-67
								
2	800	E		ACTT2S				ACTT2X
		ETN	**ACTT2W**	**ACTT2S**				**ACTT2X**
4	800	C/E		ACTT4S				ACTT4X
6	800	E			ACTT6B	ACTT6G	ACTT6	ACTT6X
		CN			ACTT6B		ACTT6	ACTT6X
8	800	C0/C0T			ACTT8B		ACTT8	ACTT8X
		CTN			ACTT8B		ACTT8	ACTT8X
10	800	C/CT					ACTT10	ACTT10X
		CTN			ACTT10B		ACTT10	ACTT10X
12	800	C/CT			ACTT12B		ACTT12	ACTT12X
		CTN		**ACTT12S**	ACTT12B		ACTT12	ACTT12X
16	800	CTN			ACTT16B		ACTT16	ACTT16X

AC THYRISTORS

2Q Hi-Com power switches, exclusive negative gate triggering, common mounting base, overvoltage protection

Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development

I_{GT} key:
D 5mA
E 10mA

$I_{T(RMS)}$ (A)	V_{DRM} (V)	I_{GT}(max) (mA)	MS-012 SOT96-1 SO8	SOT223 SC-73	TO-92 SOT54
					
0.2	600	D	ACT102H		
0.8	600	D/E		ACT108W	ACT108
	800	E		ACT108W	ACT108

TEMPERATURE AND OVERLOAD PROTECTED TRIACS (TOPTriac)

2Q Hi-Com power switches, exclusive negative gate triggering, over-temperature protection

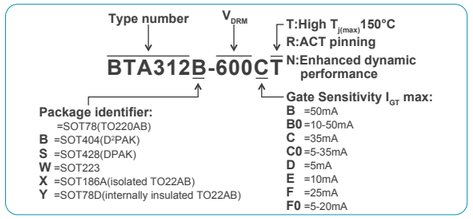
Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development

I_{GT} key:
C0 5-35mA

$I_{T(RMS)}$ (A)	V_{DRM} (V)	I_{GT}(max) (mA)	TO-263 SOT404 D²PAK	TO-220 SOT78
				
12	800	C0		TOPT12
16	800	C0	***TOPT16B***	TOPT16

THREE-QUADRANT Hi-Com TRIACS

3Q Triacs part numbering



In the spotlight

3Q Hi-Com Triacs BTA425, BTA330, BTA440, BTA445

Planar passivated for voltage ruggedness and reliability

High junction operating temperature capability (150 °C)Less sensitive gate for high noise immunity

High commutation, high dV_c/dt for maximumm immunity to false triggering

I_{GT} key:

B	50mA
B0	10-50mA
C	35mA
C0	5-35mA
D	5mA
E	10mA
F	25mA
F0	5-20mA

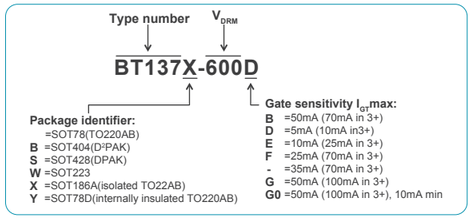
Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development
R: ACT pinning T: high $T_j$max 150°C N: enhanced Noise immunity * High I_{TSM}

$I_{T(RMS)}$ (A)	V_{DRM} (V)	I_{GT}(max) (mA)	SOT223 SC-73	TO-252 SOT428 DPAK	TO-263 SOT404 D²PAK	TO-92 SOT54	TO-262 SOT226A I²PAK	TO-220 SOT78	TO-220(ins) SOT78D	TO-220F SOT186A SC-67	TO-3P(ins) SOT1292
											
0.8	600 / 800	D	BTA2008W								
	600 / 800	D/E				BTA2008					
	1000	D				BTA2008					
	1000	DN				**BTA2008**					
1	600 / 800	B/E/ER				BTA201					
	600 / 800	E	BTA201W								
	600	B/C/D/E/F	BTA204W*								
	800	C/E	BTA204W*								
2	600 / 800	D/E								BTA202X	
	800	ET	**BTA202W**								
	1000	CT/ET	**BTA202W**			**BTA202**				**BTA202X**	
3	800	CT				**BTA203**					
	800	ET				**BTA203**					
4	600	B/C/D/E/F		BTA204S				BTA204		BTA204X	
	800	B/C/E		BTA204S				BTA204		BTA204X	
	1000	C		BTA204S						BTA204X	
6	800	CT/ET						BTA206		BTA206X	
8	600	D		BTA208S				BTA208		BTA208X	
	600 / 800	B/E/F		BTA208S				BTA208		BTA208X	
	800	CT								**BTA208X**	
	800	B0/C0								BTA308X	
	800	C0T			**BTA308B**			**BTA308**	BTA308Y		
	800	ET		BTA308S	**BTA308B**			BTA308	**BTA308Y**	BTA308X	
	800	F0								BTA308X	
	1000	B								BTA208X	
	1000	C			BTA208B					BTA208X	
	1000	C0								BTA208X	
	1000	C0T								BTA408X*	
10	600 / 800	C/D/E						BTA310		BTA310X	
	600 / 800	BT/CT/ET						BTA410*	BTA410Y*	BTA410X*	
12	600	CT			BTA312B		BTA312G	BTA312			
	600	D			BTA312B			BTA312		BTA312X	
	600 / 800	B/C/E			BTA312B			BTA312		BTA312X	
	600 / 800	C							BTA312Y		
	600 / 800	B/C							BTA412Y*		
	600 / 800	ET							BTA412Y*		
	800	CT						BTA312		BTA312X	
	800	ET			BTA312B			BTA312			
16	600	BT			BTA316B			BTA316			
	600	B0			BTA316B			BTA316			
	600	CT			BTA316B						
	600	D						BTA316			
	600 / 800	B/C/E			BTA316B			BTA316		BTA316X	
	600 / 800	ET						BTA316			
	600 / 800	B/C							BTA416Y*		
	800	B0						BTA316		BTA316X	
	800	BT/CT							BTA316Y		
	800	CT						BTA316		BTA316X	
	800	BT/CT			**BTA416B***			**BTA416***		BTA416X*	
20	800	BT/CT						BTA420*	BTA420Y*	BTA420X*	
25	600	BT						BTA225			
	600 / 800	B			BTA225B			BTA225			
	800	BT			BTA225B						
	800	BT/CT							BTA425Y*		**BTA425Z***
	800	B/BT								BTA425X*	
30	800	BT						BTA330		BTA330X	
	800	BT/CT			**BTA330B**				BTA330Y		
	800	CT						**BTA330**		**BTA330X**	
40	800	BT									BTA440Z
	1200	BT									***BTA440Z***
45	800	BT									BTA445Z
50	800	BT									**BTA450Z**

FOUR-QUADRANT TRIACS

Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development
T: high $T_j$max 150°C * High I_{TSM} ** Enhanced immunity to false triggering

4Q Triacs part numbering



In the spotlight

4Q Triacs Z010*0 series**

- Planar passivated for voltage ruggedness and reliability
- Improved dynamic performance over Z010***series
- Best false trigger immunity for sensitive 4Q triacs

I_{GT} key:

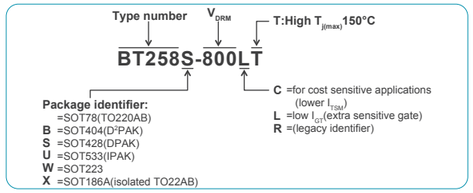
B	50mA (70mA in 3+)
D	5mA (10mA in3+)
E	10mA (25mA in 3+)
F	25mA (70mA in 3+)
-	35mA (70mA in 3+)
G	50mA (100mA in 3+)
G0	50mA (100mA in 3+), 10mA min

$I_{T(RMS)}$ (A)	V_{DRM} (V)	I_{GT}(max) (mA)	SOT223 SC-73	TO-252 SOT428 DPAK	TO-263 SOT404 D²PAK	TO-92 SOT54	SOT82	TO-220 SOT78	TO-220(ins) SOT78D	TO-220F SOT186A SC-67	TO-3P(ins) SOT1292
0.6	400	5/5/5/7				MAC97A6					
	600	5/5/5/7				MAC97A8					
1	600	3/3/3/7	BT131W								
	600 / 800	3/3/3/7				BT131					
	600 / 800	5/5/5/7				BT131-D					
	600 / 800	10/10/10/10				BT131-E					
	600 / 800	3/3/3/5	Z0103MN/NN			Z0103MA/NA					
	600 / 800	5/5/5/7	Z0107MN/NN			Z0107MA/NA					
	600 / 800	10/10/10/10	Z0109MN/NN			Z0109MA/NA					
	600 / 800	3/3/3/5	Z0103MN0/NN0**			Z0103MA0/NA0**					
	600 / 800	5/5/5/7	Z0107MN0/NN0**			Z0107MA0/NA0**					
	600 / 800	10/10/10/10	Z0109MN0/NN0**			Z0109MA0/NA0**					
	600	5/5/5/10				BT132-D*					
	600	D/E/-	BT134W*								
	800	-	BT134W*								
2	800	E	***BT134W***								
4	600	D/E/-/G					BT134				
	800	E/-					BT134				
	600 / 800	D/E						BT234*		BT234X*	
	600	D/-		BT136S				BT136		BT136X	
	600	F		BT136S						BT136X	
	600 / 800	E		BT136S	BT136B			BT136		BT136X	
	800	D		***BT136S***							
	800	F		BT136S							
	800	-		BT136S						BT136X	
6	600	F/-/G								BT236X	
	800	-/G								BT236X	
8	600	D/-/G		BT137S				BT137		BT137X	
	600	E		BT137S	BT137B			BT137		BT137X	
	600	F		BT137S	BT137B					BT137X	
	600 / 800	G0/G0T						BT137			
	800	E		BT137S				BT137		BT137X	
	800	F		BT137S	BT137B						
	800	-			BT137B			BT137		BT137X	
	800	G		BT137S	BT137B						
12	600	D						BT138		BT138X	
	600	-/G			BT138B			BT138		BT138X	
	600	F			BT138B					BT138X	
	600	G0/G0T						BT138			
	600 / 800	E			BT138B			BT138	BT138Y	BT138X	
	800	F								BT138X	
	800	-						BT138		BT138X	
	800	G						BT138			
16	600	E/-			BT139B			BT139		BT139X	
	600	F/G			BT139B					BT139X	
	600	G0/G0T						BT139			
	600 / 800	B							BTA16		
	800	E			BT139B			BT139			
	800	F			BT139B						
	800	-			BT139B			BT139		BT139X	
	800	G			BT139B			BT139			
20	600	50/50/50/75								MAC223A8X	
25	400	50/50/50/75						MAC223A6			
	600	G0/G0T						BTA140			
	600 / 800	-						BTA140			
40	600 / 800	B									BTA41
45	800	B									BTA45

SILICON CONTROLLED RECTIFIERS

Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development
A: Automotive qualified AEC-Q101 F: Fast switching L: Low I_{GT}
N: enhanced Noise immunity T: high $T_j$max 150°C (R): Reversed pin-out * High I_{TSM}

Silicon Controlled Rectifiers part numbering



In the spotlight

High Voltage, high surge capability
SCR BT155 series, BT158, TYN60

- Planar passivated for voltage ruggedness and reliability
- Very low on-state voltage (V_T) contributes to best efficiency in AC-DC conversion
- High junction operating temperature capability (T_{jmax} 150°C)
- Less sensitive gate for high noise immunity

$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	V_{DRM} & V_{RRM} (V)	I_{GT}(max) (mA)	SOT23	TO-243 SOT89	SOT223 SC-73	TO-252 SOT428 DPAK	TO-263 SOT404 D²PAK	TO-92 SOT54	TO-251 IPAK	SOT82	TO-220 SOT78	TO-220(ins) SOT78D	TO-220F SOT186A SC-67	TO-3P SOT1259 SC-65	TO-3P(ins) SOT1292	TO-247 SOT429	TO-247Plus
0.8	0.5	200	0.2			MCR08BT1												
		400	0.012			EC103D1W			EC103D1									
		600	0.5µA min - 7µA max						N0118GA									
		200 / 400 / 600	0.2						BT149B/D/G									
		200 / 400 / 600	0.2						BT169B/D/G									
		400	0.015 min - 0.05 max						BT169D-L									
		500 / 600	0.02 min - 0.2 max						BT168E/G									
		600	0.015 min - 0.05 max						BT169G-L									
		600	0.03 min - 0.06 max						BT169G-M									
		600	0.001 min - 0.1 max	**NCR100K-6(R)**														
		600	0.015 min - 0.1 max		**NCR100Q-6M**													
		800	0.1						BT169H									
		800	0.015 min - 0.05 max						BT169H-L									
1	0.6	600	0.02 min - 0.2 max			BT168GW												
		600	0.07 min - 0.45 max			BT168GWF												
		600	0.2			BT148W-R*												
1.1	0.7	850	0.015 min - 0.05 max			NCR100W-10L												
		850	0.1			NCR100W-10M												
		1000	0.015 min - 0.05 max			NCR100W-12L												
		1000	0.1			NCR100W-12M												
1.25	0.8	1000	0.01 min - 0.09 max			**MCR100W-10M**												
		1000	0.02 min - 0.04 max						***WCR03-10L(R)***									
		1250	0.01 min - 0.09 max			**WCR03-12WM**			**WCR03-12M**									
		1250	0.001 min - 0.1 max			**NCR125W-125M**												
4	2.5	400 / 500 / 600	0.2								BT148-R							
		500	0.2									BT150-R						
		600	0.2				BT150S-R											
8	5	500 / 600 / 800	0.2									BT258-R		BT258X-R				
		600	0.2							BT258U-R								
		600	5				BT300S-R											
		800	0.05				BT258S-LT											
		800	0.2				BT258S-R											
12	7.5	650	0.2				BT151S-S											
		500 / 650	5				BT151S-L*					BT151-L*						
		600	5					**TYN12B-LT***										
		650	5									**BT151-LTF***	**BT151Y-LTF***	**BT151X-LTF***				
		650	1.5 min - 5 max									**BT151-LTN***	**BT151Y-LTN***	**BT151X-LTN***				
		650	15				BTH151S-R*											
		500 / 650 / 800	15							BT151U-C		BT151-C		BT151X-C				
		500 / 650 / 800	15				BT151S-R*					BT151-R*		BT151X-R*				
		500 / 1000	15									BT151-RT*						
16	10.2	600	6											**TYN16X-CTF**				
		600	5 min - 10 max									**TYN16-CTF**	**TYN16Y-CTF**					
		600	15				TYN16S-CT	TYN16B-CT				TYN16-CT	**TYN16Y-CT**	TYN16X-CT				
		600 / 800	25									TYN16-RT*		TYN16X-RT*				
20	13	400 / 600 / 800	32					BT152B-R				BT152-R		BT152X-R				
		500	32									BT152-RT						
		600	32					TYN20B-T										
		600	32									**TYN20-T**	**TYN20Y-T**					
		600	5 min - 10 max									**TYN20-TF**	**TYN20Y-TF**					
		800	6.2											**TYN20X-TF**				
		800	32					TYN20B-T				TYN20-T		TYN20X-T				
25	16	800	1.5 min - 10 max									BT145-RT						
		800	35									BT145-R		BT145X-R				
30	19	600	5 min - 10 max					**TYN30B-TF**				**TYN30-TF**	**TYN30Y-TF**					
		800	6 min - 15 max					**TYN30B-T**				**TYN30-T**	**TYN30Y-T**				**TYN30W-T**	
31	20	1200	32					**BT152B-T**				**BT152-T**		**BT152X-T**				
40	25	800	15					**TYN40B-T**				**TYN40-T**	**TYN40Y-T**					
		800	5 min – 35 max									***TYN40-TN***						
47	30	1200	50					**BT153B-T**				**BT153-T**					**BT153W-T**	
		1200	50					**BT153B-T-A**										
50	32	800	15					**TYN50B-T**				**TYN50-T**	**TYN50Y-T**					
		800	5 min – 35 max					***TYN50B-TN***				***TYN50-TN***	***TYN50Y-TN***					
79	50	1200 / 1600	80														**TYN50W-T**	
		1400	50														**TYN50W-T**	
		1200	50												BT155K-T	BT155Z-T	BT155W-T	
		1200	50														**BT155W-T-A**	
		1400	50														**BT155W-T**	
94	60	1400	80												TYN60K-T			
126	80	1200	70														BT158W-T	
		1600	80														**TYN80W-T**	
160	100	1200	70														**TYN100W-T**	
		1600	15 min – 100 max															***TYN100WP-T***
250	160	1600	15 min – 100 max															***TYN160WP-T***

SILICON CONTROLLED RECTIFIER POWER MODULES

W TMH 116 T 16 R

W
W = WeEn

Configuration
TMH = Thyristor Moudule Half Bridge
DMH = DiodeMoudule Half Bridge
HMH = Hybrid Module Half Bridge

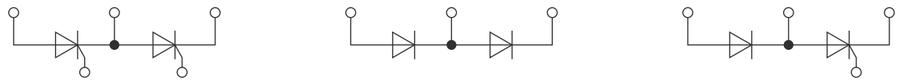
Current rating $I_{T(AV)}$
116 = 116A

Reverse pin
= Normal pin
R = Reverse pin

Voltage rating
16 = 1600V

Pacakge type
T = WeEnPACK-20mm
S = WeEnPACK-34mm

Configuration



TMH DMH HMH

W xAT TD G 80 TB S 16 T - A

W
W = WeEn

Configuration
AT = Antiparallel Thyristors
DF = Diode Full Bridge
DS = Diode3-phase(Six Pack) Bridge
UF = Ultrafast Diode Half Bridge
HH = Half Controlled Half Bridge
HF = Half Controlled Full Bridge
HS = Half Controlled 3-phase(Six Pack) Bridge
TS = Thyristor 3-phase(Six Pack) Bridge

Configuration optional A
xTyD = x Thyristors + y Diodes

Configuration optional B
ML = MOSFET Boost Chopper
MR = MOSFET Buck Chopper
GL = IGBT Boost Chopper

Automotive

Sensor optional
T = Temperature sensor

Voltage rating
16 = 1600V

Pin configuration
S = Solder pin
P = Press-fit pin

Package type
TB = WeEnTOP-B
TC = WeEnTOP-C
B1 = WeEnPACK-B1
B2 = WeEnPACK-B2

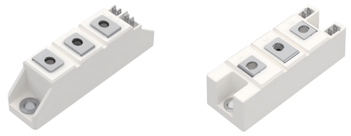
Current rating
80 = 80A

Note: x / y: number of pairs / quantities, not shown if equals 1.

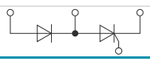
In the spotlight

Traditional Industrial Standard Package Series

- Planar passivated for voltage ruggedness and reliability
- High junction operating temperature capability (T_{jmax} 150°C) options
- Higher dV/dt capability to avoid false triggering



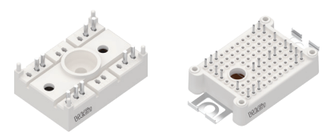
Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development

Package	Configuration	$I_{T(RMS)}$ (A)	$I_{T(AV)}$ (A)	I_{TSM} (A)	V_{DRM} & V_{RRM} (A)	I_{GT}(max) (mA)	Product name
 WeEnPACK-20mm TO-240AA		31	20	350	1200	30 min - 100 max	**WTMH20T12R**
		47	30	530	1200	30 min - 80 max	**WTMH30T12(R)**
		63	40	700	1400	30 min - 100 max	**WTMH40T14**
				750	1600	30 min - 80 max	**WTMH40T16(R)**
		94	60	1150	1600	30 min - 100 max	**WTMH60T16R**
		126	80	1700	1200	30 min - 100 max	***WTMH80T12R***
					1600	30 min - 100 max	**WTMH80T16R**
		157	100	2000	1200	30 min - 100 max	***WTMH100T12R***
					1600	30 min - 100 max	**WTMH100T16R**
		182	116	2300	1600	30 min - 100 max	**WTMH116T16(R)**
		220	140	2500	1600	30 min - 100 max	***WTMH140T16R***
		94	80	1700	1600	30 min - 100 max	***WHMH80T16***
		182	116	2300	1600	30 min - 100 max	***WHMH116T16***

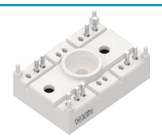
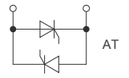
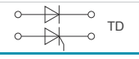
In the spotlight

Topside-cooled 12mm Height Series Modules

- Planar passivated for voltage ruggedness and reliability
- Baseplate free for better thermal dissipation
- Flexible topology configuration
- Compact design and space saving



Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development

Package	Configuration	$I_{T(RMS)}$ (A)	I_{TSM} (A)	V_{DRM} & V_{RRM} (A)	I_{GT}(max) (mA)	Product name
 WeEnTOP-B	 AT	100	1500	1200	30 min - 100 max	***WAT100TBS12***
				1600	30 min - 100 max	***WAT100TBS16***
		134	2000	1200	30 min - 100 max	***WAT120TBS12***
				1600	30 min - 100 max	***WAT120TBS16***
	 TD	100	1500	1200	30 min - 100 max	***WTD100TBS12***
		134	2000	1200	30 min - 100 max	***WTD120TBS12***

WeEn
WeEn Semiconductors

02
MOSFETs

LV / MV MOSFETs part numbering

W MS 30 N 020 S V

- **W** — W = WeEn
- **Technology** — **MS** = Trench MOSFET; **GMS** = SGT MOSFET
- **Voltage rating** — 30 = 30V
- **Channel** — **N** = N-channel; **P** = P-channel; **D** = Dual; **C** = Complementary
- $R_{DS(on)}$ **in mΩ** — 020 means 2.0 mΩ max at 25°C; 100 means 10.0mΩ max at 25°C
- **Gate threshold voltage** — **N** = Normal level(V_{GS} ≥ 10V); = Logic level (V_{GS} ≥ 4.5V); **S** = Super logic level(V_{GS} ≥ 2.5V)
- **Package type** — **V** = PDFN5x6; **E** = PDFN3.3x3.3; **K** = SOT23; **S** = DPAK(TO252); **H** = SO-8

In the spotlight

LV MOSFETs

- Advanced high cell density trench technology
- Superior FOM $R_{DS(ON)}$ * Q_g
- Optimized gate charge to minimize driver losses
- 100% avalanche tested

HV MOSFETs Part numbering

W SJM 60 R 028 D W

- **Company** — **W** = WeEn
- **Technology** — **SJ** = Super Junction
- **Structure** — **M** = Multi-epi; **T** = Deep trench
- **Breakdown voltage** — Divided by 10; 60 means 600V (=60x10)
- **R** — R = $R_{DS(on)}$
- $R_{DS(on)}$ **in mΩ** — 028 means 28mΩ max at 25°C
- **Feture** — = Standard Super Junction MOS; **D** = With enhanced fast body diode
- **Package type** — **W** = TO-247; = TO-220; **X** = TO-220F; **S** = TO-252(DPAK); **TL** = TOLL

In the spotlight

Super Junction MOSFETs

- Superior FOM $R_{DS(ON)}$ * Q_g
- Extremely low switching loss
- Integrated Ultrafast Body Diode available
- 100% avalanche tested

LV MOSFETs

Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development

Package		Config.	V_{DS} (V)	V_{GS} (±V)	Product name	$R_{DS(ON)}$ (max)(mΩ) @ V_{GS} = 10V	$R_{DS(ON)}$ (max)(mΩ) @ V_{GS} = 4.5V	$R_{DS(ON)}$ (max)(mΩ) @ V_{GS} = 2.5V	I_D @ 25°C (A)
PDFN5x6 (SuperSO8 equv.)		N	30	20	WMS30N020V	2	3.3	-	150
					WMS30N034V	3.4	6	-	118
					WMS30N045V	4.5	7	-	81
					WMS30N050V	5	8	-	71
					WMS30N085V	8.5	15	-	41
PDFN3.3x3.3		N	30	20	WMS30N045E	4.5	7	-	67
					WMS30N050E	5	8	-	62
					WMS30N085E	8.5	15	-	40
					WMS30N140E	14	21	-	30
					WMS30N250E	25	35	-	19
				12	WMS30N300SE	-	30	45	17
			20	12	WMS20N270SE	-	27	44	18
TO-252 (DPAK)		N	30	20	WMS30N020S	2	3.3	-	159
					WMS30N034S	3.4	6	-	105
					WMS30N045S	4.5	7	-	94
					WMS30N050S	5	8	-	87
SOT-23		N	30	20	WMS30N250K	25	35	-	5.9
					WMS30N420K	42	65	-	4.5
				12	WMS30N300SK	-	30	45	5.4
				10	WMS30N500SK	-	50	65	4.2
					WMS30N1200SK	-	120	145	2.7
			20	12	WMS20N270SK	-	27	44	6
					WMS20N300SK	-	30	45	5.4
				10	WMS20N500SK	-	50	65	4.2
					WMS20N700SK	-	70	100	3.5
SOT-323		N	30	10	***WMS30N1200SKS***	-	120	145	2.7
TO220		N	30	20	***WMS30N030***	3	4	-	152
					WMS30N040	4	5.2	-	119

HV MOSFETs

Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development

Package		V_{DS} (V)	V_{DS} (V)	$R_{DS(ON)}$ (max)(mΩ) @ V_{GS} = 10V	I_D @ 25°C (A)	Feature	Technology	Product name
TO247		600	±30	26	90	with FRD	super junction	***WSJT60R026DW***
				71	55	with FRD	super junction	***WSJM60R070DW***
		650	±30	28	90	with FRD	super junction	***WSJT65R028DW***
				44	67	with FRD	super junction	**WSJM65R044DW**
				44	60	-	super junction	**WSJM65R044W**
				75	45	with FRD	super junction	**WSJT65R075DW**
				99	32	with FRD	super junction	**WSJM65R099DW**
				120	30	-	super junction	**WSJM65R120W**
				170	23	-	super junction	**WSJM65R170W**
TO220		650	±30	71	55	with FRD	super junction	***WSJM60R070D***
				99	32	with FRD	super junction	**WSJM65R099D**
				120	30	-	super junction	**WSJM65R120**
				170	23	-	super junction	**WSJM65R170**
				260	13	-	super junction	**WSJM65R260**
				360	9.7	-	super junction	**WSJM65R360**
				600	6.5	-	super junction	**WSJM65R600**
		800	±30	200	23	-	super junction	**WSJM80R200**
TO220F		600	±30	71	55	with FRD	super junction	***WSJM60R070DX***
				99	32	with FRD	super junction	**WSJM65R099DX**
		650	±30	120	30	-	super junction	**WSJM65R120X**
				170	23	-	super junction	**WSJM65R170X**
				260	13	-	super junction	**WSJM65R260X**
				360	9.7	-	super junction	**WSJM65R360X**
				600	6.5	-	super junction	**WSJM65R600X**
		800	±30	200	23	-	super junction	**WSJM80R200X**
IITO-220		650	±30	170	23	-	super junction	***WSJM65R170Y***
				260	13	-	super junction	***WSJM65R260Y***
				360	9.7	-	super junction	***WSJM65R360Y***
				600	6.5	-	super junction	***WSJM65R600Y***
TO263(D^2PAK)		600	±30	71	55	with FRD	super junction	***WSJM60R070DB***
				99	32	with FRD	super junction	**WSJM65R099DB**
		650	±30	120	30	-	super junction	**WSJM65R120B**
				170	23	-	super junction	**WSJM65R170B**
				260	13	-	super junction	**WSJM65R260B**
				360	9.7	-	super junction	**WSJM65R360B**
		800	±30	200	23	-	super junction	**WSJM80R200B**
TO-252(DPAK)		650	±30	360	9.7	-	super junction	**WSJM65R360S**
				600	6.5	-	super junction	**WSJM65R600S**
TOLL		600	±30	71	55	with FRD	super junction	***WSJM60R070DTL***
		650	±30	75	45	with FRD	super junction	***WSJT65R075DTL***
				99	32	with FRD	super junction	**WSJM65R099DTL**
				120	30	-	super junction	**WSJM65R120TL**
				170	23	-	super junction	***WSJM65R170TL***

WeEn
WeEn Semiconductors

03
Power Diodes

SCHOTTKY RECTIFIER
Power schottky diodes for SMPS output rectification

Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development

V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F(max)@25C (V)	V_F(max)@125C (V)	@I_F per diode (A)	SOT78 TO220AB	SOT186A TO220F-3L	D²PAK TO263	DPAK TO252	IITO220-2L	TO220F-2L
										
45	2 x 10	0.48	0.42	10	WN3S20H45C	WN3S20H45CX				
	2 x 15	0.53	0.48	15	WN3S3045C	WN3S3045CX	WN3S3045CB			
	2 x 15	0.50	0.44	15	WN3S30H45C	WN3S30H45CX	WN3S30H45CB			
60	2x 15	0.62	0.61	15	WN3S3060C	WN3S3060CX	WN3S3060CB			
	2x 15	0.57	0.55	15	WN3S30H60C	WN3S30H60CX	WN3S30H60CB			
	20	0.69	0.68	20				WN3S2060D		
	30	0.78	0.77	30				WN3S3060D		
65	2 x 5	0.63	0.61	5				WN3S10H65CD		
100	2 x 5	0.67	0.62	5	WN3S10100C	WN3S10100CX	WN3S10100CB	WN3S10100CD		
	2 x 10	0.90	0.76	10	WN3S20S100C	WN3S20S100CX	WN3S20S100CB	WN3S20S100CD		
	2 x 10	0.89	0.73	10	WNS20S100C	WNS20S100CX	WNS20S100CB			
	2 x 10	0.70	0.63	10	WNS20H100C		WNS20H100CB			
	2 x 10	0.68	0.63	10	WN3S20H100C	WN3S20H100CX	WN3S20H100CB			
	2 x 15	0.64	0.60	15	WNS30H100C		WNS30H100CB			
	2 x 15	0.70	0.64	15	WN3S30100C	WN3S30100CX	WN3S30100CB			
	2 x 15	0.66	0.62	15	WN3S30H100C	WN3S30H100CX				
	2 x 20	0.71	0.64	20	WNS40100C					
	2 x 20	0.73	0.67	20	WN3S40100C	WN3S40100CX	WN3S40100CB			
	2 x 20	0.67	0.63	20	WNS40H100C		WNS40H100CB			
	2 x 20	0.67	0.63	20	WN3S40H100C	WN3S40H100CX	WN3S40H100CB			
	20	0.75	0.68	20				WN3S20100D		
	30	0.86	0.76	30				WN3S30100D		
120	2 x 15	0.95	0.71	15	WN3S30H120C	WN3S30H120CX	WN3S30H120CBT			
	2 x 20	0.95	0.72	20	WN3S40120C	WN3S40120CX	WN3S40120CBT			
150	2 x 5	0.81	0.68	5	WN3S10S150CT	**WN3S10S150CXT**	WN3S10S150CBT	WN3S10S150CDT		
	2 x 5	0.89	0.63	5	WN3S10H150C	WN3S10H150CX				
	2 x 10	0.84	0.72	10	WN3S20150CT	**WN3S20150CXT**	WN3S20150CBT	WN3S20150CDT		
	2 x 10	1.06	0.68	10	WN3S20H150C	WN3S20H150CX				
	2 x 15	0.81	0.67	15	WN3S30H150CT	**WN3S30H150CXT**	WN3S30H150CBT			
	2 x 20	0.83	0.71	20	WN3S40150CT	**WN3S40150CXT**	WN3S40150CBT			
	20	0.87	0.75	20				WN3S20150DT		
	30	0.89	0.78	30				WN3S30150DT		
170	2 x 15	0.81	0.67	15			WN3S30H170CBT			
	2 x 20	0.84	0.71	20			WN3S40170CBT			
200	2 x 5	0.83	0.70	5	WN3S10S200CT	**WN3S10S200CXT**	WN3S10S200CBT	WN3S10S200CDT		
	2 x 5	0.82	0.69	5	WN3S10200CT			WN3S10200CDT		
	2 x 5	0.81	0.68	5				WN3S10H200CDT		
	2 x 10	0.86	0.75	10	WN3S20200CT	**WN3S20200CXT**	WN3S20200CBT	WN3S20200CDT		
	2 x 15	0.88	0.77	15	WN3S30S200CT	**WN3S30S200CXT**	WN3S30S200CBT			
	2 x 15	0.85	0.73	15			WN3S30200CBT			
	2 x 20	0.87	0.75	20	WN3S40200CT	**WN3S40200CXT**	WN3S40200CBT			
	15	0.88	0.77	15					***WN3S15200YT***	***WN3S15200XT***
	20	0.90	0.80	20				WN3S20200DT		
	30	0.93	0.80	30				WN3S30200DT		

CASCO DIODES
employing series die technology for the lowest possible t_{rr}

Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development

Casco Diodes for Continuous Current Mode PFC

V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F(typ)@150C (V)	@I_F (A)	t_{rr}(typ)@25C (us)	SOD113 (TO220F-2L)
					
600	8	2	8	12.5	BYC58X-600

HYBRID DIODES (FRD+ STD DIODES)

Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development

FRD V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F(typ)@150C (V)	@I_F (A)	t_{rr}(typ)@25C (ns)	STD V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F(typ)@150C (V)	@I_F (A)	TO247-3L
									
600	30	1.38	30	35	1600	45	1.1	45	WNC3060D45160W

BRIDGE RECTIFIER

Types in **bold Brown** represent new products planned
Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development

V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F(typ)@25C (V)	@I_F (A)	t_{rr}(typ)@25C (us)	GBU	GBJ
						
600	15	0.88	15	3	**WNB1560U**	
	25	0.9	25	3	***WNB2560U***	**WNB2560M**
800	15	0.9	15	3	**WNB1580U**	
	25	0.92	25	3	**WNB2580U**	**WNB2580M**

3-PHASE BRIDGE RECTIFIER

Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development

V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F(typ)@25C (V)	@I_F (A)	WMM01
				
1600	75	1.25	75	WDMF75M16

AUTO POWER DIODES

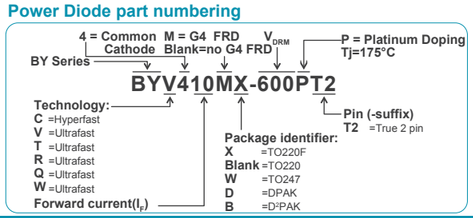
Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development

V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F(typ)@150C (V)	@I_F (A)	t_{rr}(typ)@25C (ns)	TO247-2L	SOT404 / TO263 (D^2PAK)
						
600	30	1.4	30	60	BYC30W-600PT2-A	
	30	0.98	30	65	***BYV30W-600PT2-A***	
	60	1.1	60	79	***BYV60W-600PT2-A***	
1200	35	1.15	35			**WND35P12B-A**
	45	1.1	45		**WND45P12W-A**	
	60	0.99	60		**WND60P12W-A**	

ULTRAFAST POWER DIODES

Types in **bold blue** represent new products
Types in ***bold red italic*** represent products in development

Power Diode part numbering



In the spotlight

Ultrafast power diodes

- Fast switching
- High voltage capability
- Low forward voltage drop
- Low leakage current(platinum doped series)
- Low thermal resistance
- Soft recovery characteristic

V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F(typ)@150C (V)	@I_F (A)	t_{rr}(typ)@25C (ns)	SMA	SMB	SMC	SOD59 (TO220-2L)	SOD113 (TO220F-2L)	IITO220-2L	SOT78 (TO220AB)	SOT186A (TO220F-3L)	SOT223	SOT428 / TO252 (DPAK)	SOT404 / TO263 (D^2PAK)	SOT226 (I^2PAK)	TO247-2L	SOT429 (TO247-3L)	SOT1259 (TO-3P)	TO-3PF
100	8	0.8	8	20				BYW29E-100												
	2 x 10	0.72	8	20							BYV32E-100									
150	2 x 0.75	0.5	0.5	10									BYV40E-150							
	8	0.8	8	20				BYW29E-150												
	2 x 10	0.72	8	20							BYV32E-150									
	2 x 15	0.78	15	20							BYV42E-150									
200	3	0.7	3	27			**MUR320**													
	8	0.8	8	20				BYW29E-200	BYW29EX-200					BYW29ED-200						
	2 x 5	0.8	5	15							BYQ28E-200	BYQ28X-200								
	2 x 5	0.8	5	15							BYQ28E-200E			BYQ28ED-200PL						
	14	0.83	14	20				BYV79E-200												
	2 x 8	0.84	8	20							BYQ30E-200									
	2 x 10	0.72	8	20							BYV32E-200P				BYV32EB-200P	BYV32G-200				
	2 x 15	0.78	15	20							BYV42E-200				BYV42EB-200	BYV42G-200		BYV72EW-200	BYQ72EK-200	
	2 x 15	0.78	15	20							BYQ42E-200							BYQ72EW-200		
300	2 x 5	0.95	5	50							BYT28-300									
	2 x 10	0.81	10	9							BYV32E-300P	BYV32EX-300P			BYV32EB-300P					
	2 x 30	0.85	30	33														BYV430W-300P	BYV430K-300P	
400	4	0.8	4	55			**MUR440**													
	9	0.9	8	50				BYV29-400												
	2 x 10	0.87	10	50							BYV34-400									
	2 x 15	0.95	15	35														BYV74W-400		
500	9	0.9	8	50				BYV29-500	BYV29X-500						BYV29B-500					
	2 x 5	0.95	5	50							BYT28-500	BYT28X-500								
	14	0.9	15	50				BYT79-500												
	2 x 10	0.87	10	50							BYV34-500									
	2 x 15	0.95	15	50							BYV44-500									
600	1	0.88	1	45	MURS160	**MURS160B**														
	3	0.88	3	36		**MURS360B**														
	4	0.99	4	29										**BYV4MD-600P**						
	5	1.15	5	38										BYV5ED-600P						
	5	0.9	5	45			**MUR560**													
	5	1.1	5	17.5				BYV25F-600	BYV25FX-600					BYV25FD-600	BYV25FB-600					
	5	0.97	5	50					BYV25X-600					BYV25D-600		BYV25G-600				
	8	1.07	8	60				BYR29-600	BYR29X-600											
	8	0.8	8	66			**MUR860**													
	8	1.1	8	24					**BYV29MFX-600P**											
	9	0.97	8	50				BYV29-600P	BYV29X-600P					BYV29D-600P	BYV29B-600P	BYV29G-600P				
	9	1.25	8	17.5				BYV29F-600	BYV29FX-600					BYV29FD-600	BYV29FB-600					
	10	1.6	10	20				BYV10-600P	BYV10X-600P											
	10	0.92	10	40						***BYT10Y-600P***				BYV10D-600P						
	10	1.6 max	10	35					BYV10EX-600P					BYV10ED-600P						
	10	1.1	10	45				BYV10M-600P	BYV10MX-600P											
	10	1.1	10	58											**BYV10MB-600P**					
	15	1	15	50				BYT79-600												
	15	0.96	15	50					BYT79X-600P						BYT79B-600P					
	2 x 10	0.92	10	50							BYV34-600	BYV34X-600				BYV34G-600				
	2 x 10	1	10	30							BYV410-600P	BYV410X-600P								
	2 x 10	1.3	10	20								BYV410X-600								
	2 x 15	1.3	15	20														BYV415W-600P	BYV415K-600P	BYV415J-600P
	30	0.96	30	85																BYV30JT-600P
	30	0.98	30	42				BYV30-600P	BYV30X-600P						BYV30B-600P		BYV30W-600P / PT2			
	40	0.97	40	52													BYV40W-600P			
	2 x 30	1.25	30	53														BYV430W-600P		BYV430J-600P
	60	1.2	60	53													BYV60W-600P BYQ60W-600PT2			
	60	1.1	60	79										**BYV8MD-650P**	**BYV8MB-650P**		BYV60W-600PT2			
650	8	1.13	8	56				**BYV8M-650P**	**BYV8MX-650P**					**BYV10MED-650P**						
	10	1.2	10	53										**BYV10MD-650P**						
	10	1.5	10	55										**BYV15MD-650P**	**BYV15MB-650P**					
	15	1.35	15	45				**BYV15M-650P**	**BYV15MX-650P**					**BYV21MD-650P**	**BYV21MB-650P**					
	20	1.5	20	50				**BYV21M-650P**	**BYV21MX-650P**											
	20	1.25	20	65				**BYV20M-650P**	**BYV20MX-650P**						**BYV30MB-650P**					
	30	1.06	30	78				**BYV30M-650P**	**BYV30MX-650P**								BYV30MW-650PT2			
	50	1.05	50	65													BYV50MW-650PT2			
	80	1.2	80	85													BYV80MW-650PT2			
800	8	1.07	8	60				BYR29-800												
	8	1.2	8	40					BYR29X-800P											
1200	5	1.6	5	50										BYR5D-1200P						

HYPERFAST POWER DIODES

Types in **bold blue** represent new products
Types in **bold red italic** represent products in development
Hyperfast diodes for Continuous Current Mode PFC

V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F(typ)@150C (V)	@I_F (A)	t_{rr}(typ)@25C (ns)	SOD59 (TO220AC)	SOD113 (TO220F-2L)	IITO220-2L	SOT78 (TO220AB)	SOT186A (TO220F-3L)	SOT428 / TO252	SOT404 / TO263 (D^2PAK)	TO247-2L	SOT429 (TO247-3L)	TO3PF
400	2 x 5	0.85	5	30					BYC405X-400P					
500	5	1.15	5	16	BYC5D-500	BYC5DX-500								
600	5	1.4	5	19							BYC5B-600			
	5	1.55	5	13	BYC5-600P	BYC5X-600P								
	8	1.4	8	20	BYC8D-600	BYC8DX-600								
	8	1.4	8	19	BYC8-600P	BYC8X-600P					BYC8B-600P			
	10	1.4	10	19							BYC10B-600			
	10	1.3	10	19	BYC10-600P	BYC10X-600P								
	10	1.4	10	18	BYC10D-600	BYC10DX-600								
	2 x 5	1.4	5	19				BYC10-600CT						
	15	1.4	15	22	BYC15-600P	BYC15X-600P								
	15	1.27	15	26	**BYC15M-600P**	**BYC15M-600P**				**BYC15MD-600P**	**BYC15MB-600P**			
	20	1.4	20	28								**BYC20MW-600PT2**		
	20	1.4	20	19	BYC20-600									
	20	1.2	20	26	BYC20D-600P	BYC20DX-600P								
	20	1.2	20	25		BYC20X-600P								
	30	1.4	30	35			**BYC30MY-600PS**							BYC30JT-600PS
	30	1.5	30	26								BYC30DW-600P		
	30	1.38	30	29	BYC30-600P	BYC30X-600P	BYC30Y-600P				BYC30B-600P	BYC30W-600P	BYC30WT-600P	
	30	1.38	30	26								BYC30W-600PT2		
	30	1.5	30	51		BYC30X-600PS	BYC30Y-600PS							
	30	1.4	30	60								BYC30W-600PT2-A		
	60	1.55	60	40								BYC60W-600P/PT2		
	75	1.6	75	42								BYC75W-600P/PT2		
	100	1.2	100	55								**BYC100MW-600PT2**		
650	8	1.45	8	28	**BYC8M-650P**	**BYC8MX-650P**				**BYC8MD-650P**	**BYC8MB-650P**			
	10	1.5	10	29	**BYC10M-650P**	**BYC10MX-650P**				**BYC10MD-650P**	**BYC10MB-650P**			
	12	1.6	12	30	**BYC12M-650P**	**BYC12MX-650P**				**BYC12MD-650P**				
	15	1.6	15	30	**BYC15M-650P**	**BYC15MX-650P**				**BYC15MD-650P**	**BYC15MB-650P**			
	30	1.38	30	38	**BYC30M-650P**	**BYC30MX-650P**					**BYC30MB-650P**	**BYC30MW-650PT2**		
	30	1.5	30	52	**BYC30M-650PS**	**BYC30MX-650PS**					**BYC30MB-650PS**	**BYC30MW-650PST2**		
	30	1.45	30	72	**BYC31M-650PS**	**BYC31MX-650PS**								
	50	1.23	50	75								**BYC50MW-650PT2**		
	60	1.33	60	74								**BYC60MW-650PT2**		
	80	1.46	80	60								**BYC80MW-650PT2**		

1200V HYPERFAST POWER DIODES

Types in **bold blue** represent new products
Types in **bold red italic** represent products in development

In the spotlight

1200V Planar Hyperfa st Power Diodes

- Planar Passivated, Pt doping technology
- Fast recovery, System efficiency improvement
- Soft recovery, Reduce system EMI
- Avalanche ruggedness
- Reduces switching losses in associated MOSFET or IGBT

V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F(typ)@150C (V)	@I_F (A)	t_{rr}(typ)@25C (ns)	SOD59 (TO220AC)	TO247-2L
1200V	5	2	5	42	BYC5-1200P	
	8	2	8	46	BYC8-1200P	
	15	2	15	61	BYC15-1200P	
	30	2.1	30	70	BYC30-1200P	BYC30W-1200P
	40	2.2	40	91		BYC40W-1200P
	60	2.2	60	96		BYC60W-1200P
	75	2.2	75	113		BYC75W-1200P
	100	2.2	100	115		BYC100W-1200P

STANDARD RECTIFIER

Types in **bold blue** represent new products
Types in **bold red italic** represent products in development

V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F(typ)@150C (V)	@I_F (A)	IFSM @10ms (A)	SOD59 (TO220-2L)	SOD113A (TO220F-2L)	SOT78D (IITO220)	SOT428 / TO252 (DPAK)	SOT404 / TO263 (D^2PAK)	TO247-2L
600V	10	0.82	10	350		WND10M600X				
800V	8	0.84	8	150				SK8D		
	10	1	10	180		WND10P08X				
	10	1	10	180			WND10P08Y			
	35	1.15	35	400	WND35P08	WND35P08X				
1200V	35	1.15	35	400	**WND35P12**	**WND35P12X**			WND35P12B	
1600V	8	1	8	150		WND08P16X		WND08P16D		
	35	1.15	35	400	**WND35P16**	**WND35P16X**			**WND35P16B**	
	45	1	45	475						WND45P16W
	60	1.08	60	650						WND60P16W

WeEn
WeEn Semiconductors

04
Silicon Carbide

SiC MOSFET

SiC Diode
(SiC Diode G2 1200V)
(SiC Diode G5 650V)
(SiC Diode G6 650V)

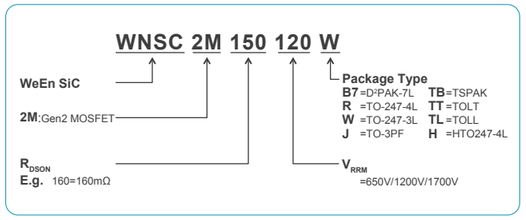
SiC Diode Auto Grade

SiC MOSFETs Auto Grade

SiC Power Module Product

SiC Bare die
(SiC Diode)
(SiC MOSFET)

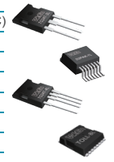
SIC MOSFET



In the spotlight

Gen-2 SiC MOSFET

- High Threshold Voltage ~2.6V@ 25°C (2V@ 125°C)
- Capable of 15-18V gate-drive voltage
- Gate driving voltage -12~22V, reliablity confirmed.
- Reduced gate-source ringing
- Low thermal resistance
- High Blocking Voltage(Beyond 1500V)
- Low Rds(on)@ High Temperature



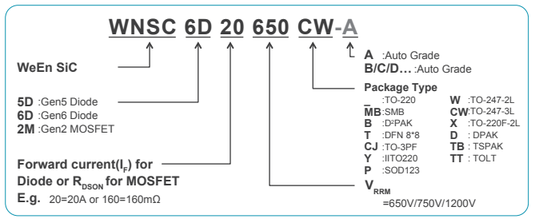
In the spotlight

Top-side Cooling Package

- Top side cooling(TCS) structure
- Low thermal impedance
- Low EMC noise
- Low circuit inductance
- Topside cooling makes SiC chip down-size possible

V_{BRDS} (V)	R_{DSON}(TYP) @15Vgs @25°C (mΩ)	R_{DSON}(TYP) @18Vgs @25°C (mΩ)	T_j(max)°C	Qualification	TO247-3L	TO247-4L	TO263-7L (D^2PAK-7L)	TO-3PF	TSPAK	TOLT	TOLL	HTO247-4L
												
650	15	12	175	Industrial	WNSC2M15065W	WNSC2M15065R	WNSC2M15065B7					
	20	16	175	Industrial		WNSC2M20065R	WNSC2M20065B7		WNSC2M20065TB	WNSC2M20065TT		
	25	20	175	Industrial		WNSC2M25065R	WNSC2M25065B7			WNSC2M25065TT		
	33	26	175	Industrial	WNSC2M30065W	WNSC2M30065R	WNSC2M30065B7			WNSC2M30065TT		
	45	33	175	Industrial	WNSC2M45065W	WNSC2M45065R	WNSC2M45065B7			WNSC2M45065TT	WNSC2M45065TL	
	55	43	175	Industrial	WNSC2M55065W	WNSC2M55065R	WNSC2M55065B7			WNSC2M55065TT	WNSC2M55065TL	
	70	55	175	Industrial	WNSC2M70065W	WNSC2M70065R	WNSC2M70065B7			WNSC2M70065TT	WNSC2M70065TL	
	120	80	175	Industrial	WNSC2M120065W	WNSC2M120065R	WNSC2M120065B7				WNSC2M120065TL	
	160	110	175	Industrial	WNSC2M160065W		WNSC2M160065B7				WNSC2M160065TL	
1200	12	10	175	Industrial		WNSC2M12120R			WNSC2M12120TB			
	20	17	175	Industrial		WNSC2M20120R	WNSC2M20120B7		WNSC2M20120TB			
	30	26	175	Industrial		WNSC2M30120R	WNSC2M30120B7		WNSC2M30120TB			
	40	35	175	Industrial	WNSC2M40120W	WNSC2M40120R	WNSC2M40120B7		WNSC2M40120TB			WNSC2M40120RH
	60	51	175	Industrial	WNSC2M60120W	WNSC2M60120R	WNSC2M60120B7					
	75	64	175	Industrial	WNSC2M75120W	WNSC2M75120R	WNSC2M75120B7		WNSC2M75120TB			
	150	128	175	Industrial	WNSC2M150120W	WNSC2M150120R	WNSC2M150120B7					
1700	1000	750	175	Industrial	WNSC2M1K0170W		WNSC2M1K0170B7	WNSC2M1K0170J				

SiC Diode



In the spotlight

1200V SiC Schottky Diode

- Highly stable switching performance
- High forward surge capability IFSM
- Extremely fast reverse recovery time
- Superior in efficiency to Silicon Diode alternatives
- Reduced losses in associated MOSFET
- Reduced cooling requirements
- Reduced EMI
- RoHS compliant
- High junction operating temperature capability ($T_{j(max)}$ = 175 °C)

In the spotlight

650V G5 SiC Schottky Diode

- Highly stable switching performance
- High forward surge capability IFSM
- Extremely fast reverse recovery time
- Superior in efficiency to Silicon Diode alternatives
- Reduced losses in associated MOSFET
- Reduced EMI
- Reduced cooling requirements
- RoHS compliant

In the spotlight

650V G6 SiC Schottky Diode

- BV > 800V & Ultra low Ir(<10uA)
- Ultra low Vf (1.26V nominal)
- Ag sinter welding technolgy
- Ultra thin wafer, Low Ron & Low Rth
- Very wide portfolio

SiC Diode G2 1200V

V_{RRM} (V)	$I_{F(AV)}$ (V)	V_F @I_F(typ) @ 25°C (V)	Q_r (typ) @ 25°C (nC)	TO220-2L True 2 pin	TO247-2L True 2 pin	TO247-3L	DPAK	TO263-2L (D^2PAK-2L) True 2 pin	TSPAK	SMB
										
1200	2	1.42	4	WNSC2D021200			WNSC2D021200D			WNSC2D021200MB
	5	1.42	10	WNSC2D051200			WNSC2D051200D			
	10	1.42	23	WNSC2D101200	WNSC2D101200W		WNSC2D101200D	WNSC2D101200BT2		
	15	1.42	35		WNSC2D151200W			WNSC2D151200BT2		
	20	1.45	39	WNSC2D201200	WNSC2D201200W			WNSC2D201200BT2	WNSC2D201200TB	
	25	1.45	55		WNSC2D251200W					
	30	1.42	68		WNSC2D301200W				WNSC2D301200TB	
	40	1.42	99		WNSC2D401200W				WNSC2D401200TB	
	50	1.42	125		WNSC2D501200W					
	60	1.42	150		WNSC2D601200W					
	2 x 5	1.42	10			WNSC2D101200CW				
	2 x 10	1.42	23			WNSC2D201200CW				
	2 x 15	1.45	35			WNSC2D301200CW				
	2 x 20	1.5	39			WNSC2D401200CW				

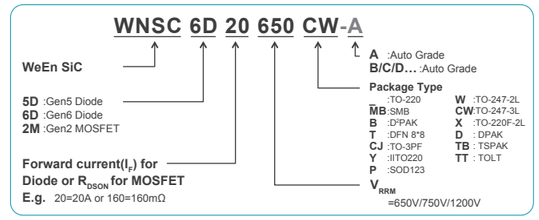
SiC Diode G5 650V

V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F @I_F(typ) @ 25°C (V)	Q_r (typ) @ 25°C (nC)	TO220-2L True 2 pin	IITO220	TO220F-2L	TO247-2L True 2 pin	TO247-3L	TO-3PF	DPAK	TO263-2L (D^2PAK-2L) True 2 pin	DFN 8x8
												
650	4	1.45	6.5	WNSC5D04650	WNSC5D04650Y	WNSC5D04650X					WNSC5D04650D	WNSC5D04650T
	6	1.45	9	WNSC5D06650	WNSC5D06650Y	WNSC5D06650X					WNSC5D06650D	WNSC5D06650T
	8	1.45	12	WNSC5D08650	WNSC5D08650Y	WNSC5D08650X					WNSC5D08650D	WNSC5D08650T
	10	1.45	14.5	WNSC5D10650	WNSC5D10650Y	WNSC5D10650X	WNSC5D10650W				WNSC5D10650D	WNSC5D10650B	WNSC5D10650T
	12	1.45	18	WNSC5D12650	WNSC5D12650Y								WNSC5D12650T
	20	1.45	30	WNSC5D20650		WNSC5D20650X	WNSC5D20650W						
	30	1.45	48				WNSC5D30650W						
	2 x 8	1.5	12					WNSC5D16650CW	WNSC5D16650CJ				
	2 x 10	1.5	14.5					WNSC5D20650CW	WNSC5D20650CJ				
	2 x 15	1.45	24					WNSC5D30650CW					

SiC Diode G6 650V

V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F @I_F(typ) @ 25°C (V)	Q_r (typ) @ 25°C (nC)	TO220-2L True 2 pin	IITO220	TO220F-2L	TO247-2L True 2 pin	TO247-3L	TO-3PF	DPAK	TO263-2L (D^2PAK-2L) True 2 pin	TSPAK	TOLT	DFN 8x8	SMB	SOD123
																
650	1	1.15	10												WNSC6D01650MB	
	2	1.3	4							WNSC6D02650D						WNSC6D02650P
	4	1.26	9	WNSC6D04650		WNSC6D04650X				WNSC6D04650D						
	6	1.26	13	WNSC6D06650	WNSC6D06650Y	WNSC6D06650X				WNSC6D06650D				WNSC6D06650T		
	8	1.26	18	WNSC6D08650		WNSC6D08650X				WNSC6D08650D				WNSC6D08650T		
	10	1.29	24	WNSC6D10650	WNSC6D10650Y	WNSC6D10650X				WNSC6D10650D	WNSC6D10650B	WNSC6D10650TB	WNSC6D10650TT	WNSC6D10650T		
	16	1.29	36	WNSC6D16650	WNSC6D16650Y	WNSC6D16650X		WNSC6D16650CW			WNSC6D16650B		WNSC6D16650TT			
	20	1.26	48	WNSC6D20650		WNSC6D20650X	WNSC6D20650W				WNSC6D20650B	WNSC6D20650TB	WNSC6D20650TT			
	30	1.26	72				WNSC6D30650W					WNSC6D30650TB				
	2x10	1.29	24					WNSC6D20650CW	WNSC6D20650CJ							
	2x15	1.26	36					WNSC6D30650CW								
	2x20	1.26	48					WNSC6D40650CW								

SiC Diode Auto Grade

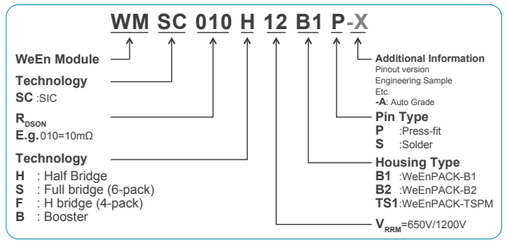


V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F @I_F (typ) @ 25°C (V)	Qualification	TO220-2L True 2 pin	TO247-2L True 2 pin	TO247-3L	TO263-2L (D^2PAK-2L) True 2 pin	DPAK	SMB	TSPAK
										
650	2	1.26	Automotive					WNSC6D02650D-A	WNSC6D02650MB	
	10	1.45	Automotive		WNSC5D10650W-A					
	10	1.26	Automotive	WNSC6D10650-A			WNSC6D10650BT2-A			
	20	1.26	Automotive	WNSC6D20650-A	WNSC6D20650W-A		WNSC6D20650BT2-A			
	30	1.26	Automotive				WNSC6D30650BT2-A			
	2*10	1.26	Automotive			WNSC6D20650CW-A				
	2*15	1.26	Automotive			WNSC6D30650CW-A				
	2*20	1.26	Automotive			WNSC6D40650CW-A				
750	10	1.26	Automotive							WNSC6D10750TB-A
	20	1.26	Automotive							WNSC6D20750TB-A
1200	10	1.42	Automotive	WNSC2D101200-A	WNSC2D101200W-A		WNSC2D101200BT2-A			WNSC2D101200TB-A
	15	1.42	Automotive				WNSC2D151200BT2-A			
	20	1.45	Automotive	WNSC2D201200-A	WNSC2D201200W-A		WNSC2D201200BT2-A			WNSC2D201200TB-A
	2*10	1.42	Automotive			WNSC2D201200CW-A				
	2*15	1.42	Automotive			WNSC2D301200CW-A				
	2*20	1.42	Automotive			WNSC2D401200CW-A				

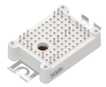
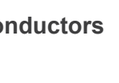
SiC MOSFETs Auto Grade

V_{BRDS} (V)	R_{DSON} (typ) @15Vgs@25°C (mΩ)	R_{DSON} (typ) @18Vgs@25°C (mΩ)	T_j(max) (°C)	Qualification	SOT429 (TO247-3L)	SOT429 (TO247-4L)	TO263-7L (D^2PAK-7L)	TSPAK
								
750	15	12	175	Automotive	WNSC2M15075W-A	WNSC2M15075R-A	WNSC2M15075B7-A	
	20	15	175	Automotive		WNSC2M20075R-A	WNSC2M20075B7-A	
	24	19	175	Automotive		WNSC2M25075R-A	WNSC2M25075B7-A	WNSC2M25075TB-A
	30	24	175	Automotive	WNSC2M30075W-A	WNSC2M30075R-A	WNSC2M30075B7-A	
	40	30	175	Automotive	WNSC2M40075W-A	WNSC2M40075R-A	WNSC2M40075B7-A	WNSC2M40075TB-A
	52	40	175	Automotive	WNSC2M55075W-A	WNSC2M55075R-A	WNSC2M55075B7-A	WNSC2M55075TB-A
	70	55	175	Automotive	WNSC2M70075W-A	WNSC2M70075R-A	WNSC2M70075B7-A	WNSC2M75075TB-A
1200	20	17	175	Automotive		WNSC2M20120R-A	WNSC2M20120B7-A	WNSC2M20120TB-A
	30	26	175	Automotive		WNSC2M30120R-A	WNSC2M30120B7-A	
	40	35	175	Automotive	WNSC2M40120W-A	WNSC2M40120R-A	WNSC2M40120B7-A	WNSC2M40120TB-A
	60	51	175	Automotive	WNSC2M60120W-A	WNSC2M60120R-A	WNSC2M60120B7-A	
	75	64	175	Automotive	WNSC2M75120W-A	WNSC2M75120R-A	WNSC2M75120B7-A	WNSC2M75120TB-A
	150	128	175	Automotive	WNSC2M150120W-A		WNSC2M150120B7-A	
1700	1000	750	175	Automotive	WNSC2M1K0170W-A		WNSC2M1K0170B7-A	

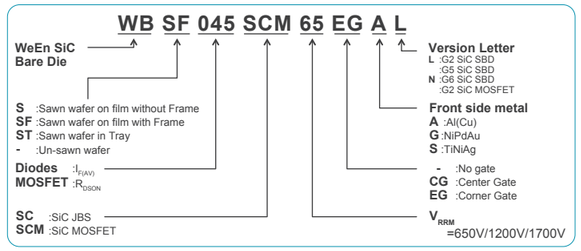
SiC Power Module Product



P: Press Fit, S: Solder Pin

Package		Configuration		Part Number	Voltage (V)	R_{Dson}(Typ) @18Vgs@25°C (mΩ)	R_{Dson}(Typ) @15Vgs@25°C (mΩ)
WeEnPACK-B1		Half bridge		WMSC008H12B1P(S)	1200	6	8
				WMSC010H12B1P(S)	1200	9.5	11
				WMSC016H12B1P(S)	1200	14	16
				WMSC020H12B1P(S)	1200	17	20
				WMSC030H12B1P(S)	1200	27	30
				WMSC040H12B1P(S)	1200	34	40
		4 pack		WMSC020F12B1P(S)	1200	17	20
				WMSC020F12B1P(S)-B	1200	17	20
				WMSC030F12B1P(S)-B	1200	27	30
				WMSC040F12B1P(S)	1200	34	40
				WMSC040F12B1P(S)-B	1200	34	40
		6 pack		WMSC020S12B1P(S)	1200	17	20
				WMSC030S12B1P(S)	1200	27	30
				WMSC040S12B1P(S)	1200	34	40
				WMSC040S12B1S-C	1200	34	40
				WMSC060S12B1P(S)	1200	50	60
		Booster	Single booster	WMSC020B12B1P(S)-B	1200	17	20
			Dual booster	WMSC020B12B1P(S)-C	1200	17	20
				WMSC030B12B1P(S)-C	1200	27	30
				WMSC030B12B1P(S)-F	1200	27	30
				WMSC040B12B1P(S)-C	1200	34	40
			Tri booster	WMSC040B12B1P(S)-D	1200	34	40
WeEnPACK-B2		Half bridge		WMSC004H12B2P(S)	1200	3.6	4
				WMSC004H12B2P(S)-D	1200	3.6	4
				WMSC006H12B2P(S)	1200	5.5	6
				WMSC008H12B2P(S)	1200	6.5	8
		4 pack		WMSC011F12B2P(S)	1200	9.5	11
				WMSC016F12B2P(S)	1200	14	16
WeEnPACK-TSPM		Half bridge		WMSC020H12TS1-A	1200	17	20
				WMSC030H12TS1-A	1200	27	30
				WMSC040H12TS1-A	1200	34	40
				WMSC060H12TS1-A	1200	51	60
				WMSC075H12TS1-A	1200	64	75
				WMSC045H06TS1-A	650	45	36

SiC Bare die



SiC Diode

"x" for Front Side Metal - **A :** Al(Cu), **G:** NiPdAu, **S:** TiNiAg

V_{RRM} (V)	$I_{F(AV)}$ (A)	V_F@I_F (typ)@ 25°C(V)	Part Number	Description
1200	10	1.42	WB10SC120xL	G2 SiC diode / 1200V / 10A
	15	1.42	WB15SC120xL	G2 SiC diode / 1200V / 15A
	20	1.45	WB20SC120xL	G2 SiC diode / 1200V / 20A
	25	1.42	WB25SC120xL	G2 SiC diode / 1200V / 25A
	30	1.42	WB30SC120xL	G2 SiC diode / 1200V / 30A
	50	1.42	WB50SC120xL	G2 SiC diode / 1200V / 50A
	60	1.42	WB60SC120xL	G2 SiC diode / 1200V / 60A
650	4	1.45	WB04SC65xL	G6 SiC diode / 650V / 4A
	6	1.45	WB06SC65xL	G5 SiC diode / 650V / 6A
	8	1.45	WB08SC65xL	G5 SiC diode / 650V / 8A
	10	1.45	WB10SC65xL	G5 SiC diode / 650V / 10A
	12	1.45	WB12SC65xL	G5 SiC diode / 650V / 12A
	20	1.45	WB20SC65xL	G5 SiC diode / 650V / 20A
	30	1.45	WB30SC65xL	G5 SiC diode / 650V / 30A
	2	1.26	WB02SC65xN	G5 SiC diode / 650V / 2A
	4	1.26	WB04SC65xN	G6 SiC diode / 650V / 4A
	6	1.26	WB06SC65xN	G6 SiC diode / 650V / 6A
	8	1.26	WB08SC65xN	G6 SiC diode / 650V / 8A
	10	1.29	WB10SC65xN	G6 SiC diode / 650V /10A
	16	1.29	WB16SC65xN	G6 SiC diode / 650V / 16A
	20	1.26	WB20SC64xN	G6 SiC diode / 650V / 20A
	30	1.26	WB30SC65xN	G6 SiC diode / 650V / 30A

SiC MOSFET

"x" for Front Side Metal - **A :** Al(Cu), **G:** NiPdAu, **S:** TiNiAg

V_{BRDS} (V)	R_{DSON}(TYP) @15Vgs @ 25°C (mΩ)	T_j(max)	Part Number	Description
1200	12	175	WB012SCM120CGxN	SiC MOSFET / 1200V / 12mΩ
	20	175	WB020SCM120CGxN	SiC MOSFET / 1200V / 20mΩ
	30	175	WB030SCM120CGxN	SiC MOSFET / 1200V / 30mΩ
	40	175	WB040SCM120CGxN	SiC MOSFET / 1200V / 40mΩ
	60	175	WB060SCM120CGxN	SiC MOSFET / 1200V / 60mΩ
	75	175	WB075SCM120CGxN	SiC MOSFET / 1200V / 75mΩ
	150	175	WB150SCM120CGxN	SiC MOSFET / 1200V / 150mΩ
1700	1000	175	WB1K0SCM170CGxN	SiC MOSFET / 1700V / 1000mΩ

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05

Insulated Gate Bipolar Transistors

650V Discrete

Types in **bold red italic** represent products in development

$BV_{ce(min)}$ (V)	I_C@100°C (A)	V_{cesat}(typ.) @25°C (V)	E_{off}(typ.) @25°C (mJ)	E_{on}(typ.) @25°C (mJ)	SCWT (uS)	I_F@100°C (A)	Q_{rr}(typ.) @25°C (mC)	T_{jmax} (°C)	TO247P	TO247-4L	TO247	TO3PF	TO220	TO220F	TO263
650	150	1.5	3	-	5	150	-	175	*WG150N65MFP1*						
650	100	1.5	2	-	5	100	-	175	*WG100N65MFP1*						
650	75	1.5	1.44	3.8	5	75	550	175			WG75N65MFW1				
650	75	1.5	1.44	3.8	5	50	321	175			WG75N65MAW1				
650	75	1.5	1	2.68	5	75	770	175		WG75N65MFR1					
650	75	1.7	1	3.8	-	75	550	175			WG75N65HFW1				
650	75	1.7	1	3.8	-	50	321	175			WG75N65HAW1				
650	75	1.7	1	3.8	-	75	550	175		WG75N65HFR1					
650	60	1.7	0.84	1.8	-	60	350	175			WG60N65HFW1				
650	50	1.7	0.9	2	5	60	350	175			WG50N65MFW1				
650	50	1.3	1.12	1.69	-	10	646	175				WG50N65LDJ1			
650	50	1.3	1.12	1.18	-	10	221	175				WG50N65LSJ1			
650	50	1.3	1.12	1.18	-	30	221	175			WG50N65LAW1				
650	50	1.55	0.72	1.8	5	10	646	175			WG50N65MDW1				
650	50	1.55	0.72	1.42	5	30	548	175			WG50N65MAW1				
650	50	1.55	0.72	1.38	5	50	321	175			WG50N65MFW1				
650	50	1.55	0.65	1.24	-	30	221	175			WG50N65HAW1				
650	50	1.55	0.65	1.35	-	50	321	175			WG50N65HFW1				
650	50	1.55	0.4	0.95	-	50	454	175		WG50N65HFR1					
650	50	1.55	0.65	0.6	-	10	148	175							WG50N65HDB1
650	40	1.5	1	1.7	10	30	646	175			WG40N65DFW				
650	40	1.5	1	1.7	10	30	646	175				WG40N65DFJ			
650	30	1.55	0.3	0.6	-	10	148	175			WG30N65HAW1				
650	30	1.55	0.3	0.8	-	30	336	175			WG30N65HFW1				
650	30	1.55	0.3	0.8	-	30	336	175							WG30N65HFB1
650	30	1.55	0.3	0.6	-	10	148	175					WG30N65HA1		
650	30	1.55	0.3	0.6	-	10	148	175						WG30N65HAX1	
650	30	1.55	0.3	-	-	-	-	175				WG30N65HJ1			
650	30	1.6	0.38	0.65	5	10	148	175			WG30N65MAW1				
650	30	1.6	0.38	0.8	5	30	336	175			WG30N65MFW1				
650	30	1.6	0.38	0.65	5	10	148	175							WG30N65MFB1
650	30	1.6	0.38	0.65	5	10	148	175						WG30N65MAX1	

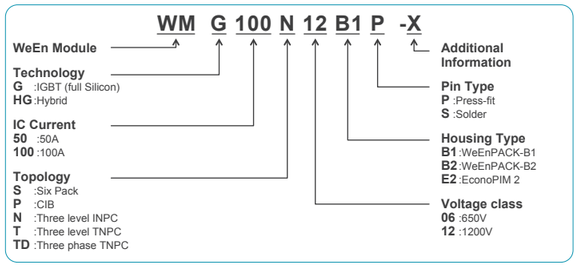
1200V Discrete

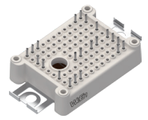
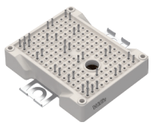
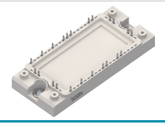
$BV_{ce(min)}$ (V)	I_C@100°C (A)	V_{cesat}(typ.) @25°C (V)	E_{off}(typ.) @25°C (mJ)	E_{on}(typ.) @25°C (mJ)	SCWT (uS)	I_F@100°C (A)	Q_{rr}(typ.) @25°C (mC)	T_{jmax} (°C)	TO247P	TO247-4L	TO247	TO3PF	TO220	TO220F	TO263
1200	75	1.68	3.2	-	10	75	-	175	WG75N120MFP1						
1200	75	1.68	3.2	-	10	75	-	175	WG75N120MAP1						
1200	75	1.68	3.2	-	10	40	1660	175			WG75N120MAW1				
1200	75	1.8	2.1	-	-	75	-	175	WG75N120HFP1						
1200	75	1.8	2.1	-	-	75	-	175	WG75N120HAP1						
1200	75	1.8	2.1	-	-	40	1660	175			WG75N120HAW1				
1200	40	2.2	1	2.5	10	40	1660	175			WG40N120HFW1				
1200	40	2.2	1	2	10	20	850	175			WG40N120HAW1				
1200	40	2.2	0.8	2	10	40	2100	175		WG40N120HFR1					
1200	40	1.68	1.7	2.5	10	40	1660	175			WG40N120MFW1				
1200	40	1.68	1.7	2	10	20	850	175			WG40N120MAW1				
1200	40	1.7	1.1	2.5	-	40	1660	175			WG40N120UFW1				
1200	40	1.7	1.1	2	-	20	850	175			WG40N120UAW1				
1200	40	1.7	1.1	2	-	20	850	175		WG40N120UAR1					
1200	25	1.68	1.15	-	10	25	-	175							WG25N120MFB1
1200	25	1.68	1.15	-	10	25	-	175			WG25N120MFW1				
1200	15	1.8	0.45	-	10	15	-	175			WG15N120MFW1				

1400V Discrete

$BV_{ce(min)}$ (V)	I_C@100°C (A)	V_{cesat}(typ.) @25°C (V)	E_{off}(typ.) @25°C (mJ)	E_{on}(typ.) @25°C (mJ)	SCWT (uS)	I_F@100°C (A)	Q_{rr}(typ.) @25°C (mC)	T_{jmax} (°C)	TO247P	TO247-4L	TO247	TO3PF	TO220	TO220F	TO263
1400	40	1.65	-	-	-	40	-	175			WG40R140W1				
1400	30	1.65	-	-	-	30	-	175			WG30R140W1				
1400	20	1.65	-	-	-	20	-	175			WG20R140W1				
1400	15	1.65	-	-	-	15	-	175			WG15R140W1				

IGBT Power Module Product



Package		Configuration	Part Number	Voltage Class (V)	I_{CMAX} (A)	Die Combination
	WeEnPACK-B1	Six Pack	WMG20S06B1S	650	20	IGBT + FRD
			WMG30S06B1S	650	30	
			WMG50S06B1S	650	50	
			WMG25S12B1S	1200	25	
		Three Level TNPC	WMG80T12B1P	1200	40	
	WeEnPACK-B2	Six Pack	WMG75S06B2S	650	75	
			WMG50S12B2S	1200	50	
		Three Level TNPC	WMG50N06B2S	650	50	
			WMG75N06B2S	650	75	
			WMG100N06B2S	650	100	
			WMG150N06B2S	650	150	
			WMHG50N06B2S	650	50	IGBT + FRD SiC Neutral Clamped Diode
			WMHG75N06B2S	650	75	
			WMHG100N06B2S	650	100	
			WMHG150N06B2S	650	150	
		Three Level TNPC	WMG80T12B2P	1200	80	
			WMG100T12B2P	1200	100	IGBT + FRD
			WMG150T12B2P	1200	150	
		Three Level TNPC	WMG25TF12B2P	1200	25	
		CIB	WMG50P12B2S	1200	50	
			WMG35P12B2S	1200	35	
	EconoPIM 2	CIB	WMG50P12E2S	1200	50	
			WMG35P12E2S	1200	35	

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06

Transient Voltage Suppressors

200W TVS DIODES, SOD123 SERIES

Package
SOD123

	SPEC	Requirement
Package	SOD123	HF + UL94V0+RoHS +Pb free plating
Power	200W	10/1000 pulse
Tj	-65C~150C	
Tstg	150C	
ESD	30KV(Air) 30KV(contact)	IEC-61000-4-2

Uni-direction	Bi-direction	Package	I_T (mA)	V_{BR} (V) --min.	V_{BR} (V) --max.	V_R (V)	I_R (uA) --max.	10/1000us Max peak pulse currnt I_{pp}(A)	10/1000us max clamp voltage V_C @ I_{pp} (V)
SOD5.0A	SOD5.0CA	SOD123	10	6.45	6.98	5	200	21.7	9.2
SOD6.0A	SOD6.0CA	SOD123	10	6.8	7.32	6	200	19.4	10.3
SOD6.5A	SOD6.5CA	SOD123	10	7.27	7.92	6.5	150	17.9	11.2
SOD7.0A	SOD7.0CA	SOD123	10	7.82	8.57	7	75	16.7	12
SOD8.0A	SOD8.0CA	SOD123	1	8.95	9.76	8	25	14.7	13.6
SOD9.0A	SOD9.0CA	SOD123	1	10.08	11.03	9	5	13	15.4
SOD10A	SOD10CA	SOD123	1	11.21	12.19	10	2.5	11.8	17
SOD11A	SOD11CA	SOD123	1	12.32	13.38	11	2.5	11.1	18.2
SOD12A	SOD12CA	SOD123	1	13.43	14.57	12	2.5	10.1	19.9
SOD13A	SOD13CA	SOD123	1	14.51	15.79	13	1	9.3	21.5
SOD14A	SOD14CA	SOD123	1	15.72	17.08	14	1	8.6	23.2
SOD15A	SOD15CA	SOD123	1	16.83	18.37	15	1	8.2	24.4
SOD16A	SOD16CA	SOD123	1	17.93	19.56	16	1	7.7	26
SOD17A	SOD17CA	SOD123	1	19.08	20.72	17	1	7.2	27.6
SOD18A	SOD18CA	SOD123	1	20.19	21.9	18	1	6.8	29.2
SOD20A	SOD20CA	SOD123	1	22.41	24.28	20	1	6.2	32.4
SOD22A	SOD22CA	SOD123	1	24.63	26.66	22	1	5.6	35.5
SOD24A	SOD24CA	SOD123	1	26.95	29.23	24	1	5.1	38.9
SOD26A	SOD26CA	SOD123	1	29.12	31.67	26	1	4.8	42.1
SOD28A	SOD28CA	SOD123	1	31.33	34.16	28	1	4.4	45.4
SOD30A	SOD30CA	SOD123	1	33.55	36.54	30	1	4.1	48.4
SOD33A	SOD33CA	SOD123	1	36.98	40.3	33	1	3.8	53.3
SOD36A	SOD36CA	SOD123	1	40.3	43.9	36	1	3.4	58.1
SOD40A	SOD40CA	SOD123	1	44.7	48.8	40	1	3.1	64.5
SOD43A	SOD43CA	SOD123	1	48.2	52.4	43	1	2.9	69.4
SOD45A	SOD45CA	SOD123	1	50.4	54.9	45	1	2.8	72.7
SOD48A	SOD48CA	SOD123	1	53.7	58.5	48	1	2.6	77.4
SOD51A	SOD51CA	SOD123	1	57.1	62.3	51	1	2.4	82.4
SOD54A	SOD54CA	SOD123	1	60.5	65.8	54	1	2.3	87.1
SOD58A	SOD58CA	SOD123	1	64.9	70.6	58	1	2.1	93.6
SOD60A	SOD60CA	SOD123	1	67.2	73.1	60	1	2.1	96.8
SOD64A	SOD64CA	SOD123	1	71.7	77.9	64	1	1.9	103
SOD70A	SOD70CA	SOD123	1	78.4	85.3	70	1	1.7	113
SOD75A	SOD75CA	SOD123	1	84	91.4	75	1	1.6	121
SOD78A	SOD78CA	SOD123	1	87.4	95	78	1	1.6	126
SOD85A	SOD85CA	SOD123	1	95.2	103.2	85	1	1.5	137

400W TVS DIODES, P4SOD123 SERIES

Package
SOD123

	SPEC	Requirement
Package	SOD123	HF + UL94V0+RoHS +Pb free plating
Power	400W	10/1000 pulse
Tj	-65C~150C	
Tstg	150C	
ESD	30KV(Air) 30KV(contact)	IEC-61000-4-2

Uni-direction	Bi-direction	Package	I_T (mA)	V_{BR} (V) --min.	V_{BR} (V) --max.	V_R (V)	I_R (uA) --max.	10/1000us Max peak pulse currnt I_{pp}(A)	10/1000us max clamp voltage V_C @ I_{pp} (V)
P4SOD5.0A	P4SOD5.0CA	SOD123	10	6.4	7	5	200	43.5	9.2
P4SOD6.0A	P4SOD6.0CA	SOD123	10	6.67	7.37	6	200	38.8	10.3
P4SOD6.5A	P4SOD6.5CA	SOD123	10	7.22	7.98	6.5	125	35.7	11.2
P4SOD7.0A	P4SOD7.0CA	SOD123	10	7.78	8.6	7	75	33.3	12
P4SOD8.0A	P4SOD8.0CA	SOD123	1	8.89	9.83	8	25	29.4	13.6
P4SOD9.0A	P4SOD9.0CA	SOD123	1	10	11.1	9	5	26	15.4
P4SOD10A	P4SOD10CA	SOD123	1	11.1	12.3	10	2.5	23.5	17
P4SOD11A	P4SOD11CA	SOD123	1	12.2	13.5	11	1	22	18.2
P4SOD12A	P4SOD12CA	SOD123	1	13.3	14.7	12	1	20.1	19.9
P4SOD13A	P4SOD13CA	SOD123	1	14.4	15.9	13	1	18.6	21.5
P4SOD14A	P4SOD14CA	SOD123	1	15.6	17.2	14	1	17.2	23.2
P4SOD15A	P4SOD15CA	SOD123	1	16.7	18.5	15	1	16.4	24.4
P4SOD16A	P4SOD16CA	SOD123	1	17.8	19.7	16	1	15.4	26
P4SOD17A	P4SOD17CA	SOD123	1	18.9	20.9	17	1	14.5	27.6
P4SOD18A	P4SOD18CA	SOD123	1	20	22.1	18	1	13.7	29.2
P4SOD20A	P4SOD20CA	SOD123	1	22.2	24.5	20	1	12.3	32.4
P4SOD22A	P4SOD22CA	SOD123	1	24.4	26.9	22	1	11.3	35.5
P4SOD24A	P4SOD24CA	SOD123	1	26.7	29.5	24	1	10.3	38.9
P4SOD26A	P4SOD26CA	SOD123	1	28.9	31.9	26	1	9.5	42.1
P4SOD28A	P4SOD28CA	SOD123	1	31.1	34.4	28	1	8.8	45.4
P4SOD30A	P4SOD30CA	SOD123	1	33.3	36.8	30	1	8.3	48.4
P4SOD33A	P4SOD33CA	SOD123	1	36.7	40.6	33	1	7.5	53.3
P4SOD36A	P4SOD36CA	SOD123	1	40	44.2	36	1	6.9	58.1
P4SOD40A	P4SOD40CA	SOD123	1	44.4	49.1	40	1	6.2	64.5
P4SOD43A	P4SOD43CA	SOD123	1	47.8	52.8	43	1	5.8	69.4
P4SOD45A	P4SOD45CA	SOD123	1	50	55.3	45	1	5.5	72.7
P4SOD48A	P4SOD48CA	SOD123	1	53.3	58.9	48	1	5.2	77.4
P4SOD51A	P4SOD51CA	SOD123	1	56.7	62.7	51	1	4.9	82.4
P4SOD54A	P4SOD54CA	SOD123	1	60	66.3	54	1	4.6	87.1
P4SOD58A	P4SOD58CA	SOD123	1	64.4	71.2	58	1	4.3	93.6
P4SOD60A	P4SOD60CA	SOD123	1	66.7	73.7	60	1	4.1	96.8
P4SOD64A	P4SOD64CA	SOD123	1	71.1	78.6	64	1	3.9	103
P4SOD70A	P4SOD70CA	SOD123	1	77.8	86	70	1	3.5	113
P4SOD75A	P4SOD75CA	SOD123	1	83.3	92.1	75	1	3.3	121
P4SOD78A	P4SOD78CA	SOD123	1	86.7	95.8	78	1	3.2	126
P4SOD85A	P4SOD85CA	SOD123	1	94.4	104	85	1	2.9	137

400W TVS DIODES, SMAJ SERIES

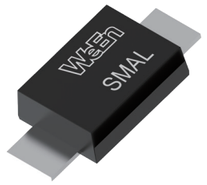
Package
SMA

	SPEC	Requirement
Package	SMA (J lead)	HF + UL94V0+RoHS +Pb free plating
Power	400W	10/1000 pulse
Tj	-65C~150C	
Tstg	150C	
ESD	30KV(Air) 30KV(contact)	IEC-61000-4-2

Uni-direction	Bi-direction	Package	I_T (mA)	V_{BR} (V) --min.	V_{BR} (V) --max.	V_R (V)	I_R (uA) --max.	10/1000us Max peak pulse currnt I_{pp}(A)	10/1000us max clamp voltage V_c @ I_{pp} (V)
SMAJ5.0A	SMAJ5.0CA	SMA	10	6.45	6.98	5	400	43.5	9.2
SMAJ6.0A	SMAJ6.0CA	SMA	10	6.8	7.32	6	400	38.8	10.3
SMAJ6.5A	SMAJ6.5CA	SMA	10	7.27	7.92	6.5	250	35.7	11.2
SMAJ7.0A	SMAJ7.0CA	SMA	10	7.82	8.57	7	100	33.3	12
SMAJ8.0A	SMAJ8.0CA	SMA	1	8.95	9.76	8	50	29.4	13.6
SMAJ9.0A	SMAJ9.0CA	SMA	1	10.1	11	9	10	26	15.4
SMAJ10A	SMAJ10CA	SMA	1	11.21	12.19	10	5	23.5	17
SMAJ11A	SMAJ11CA	SMA	1	12.32	13.38	11	1	22	18.2
SMAJ12A	SMAJ12CA	SMA	1	13.43	14.57	12	1	20.1	19.9
SMAJ13A	SMAJ13CA	SMA	1	14.54	15.76	13	1	18.6	21.5
SMAJ14A	SMAJ14CA	SMA	1	15.75	17.04	14	1	17.2	23.2
SMAJ15A	SMAJ15CA	SMA	1	16.86	18.34	15	1	16.4	24.4
SMAJ16A	SMAJ16CA	SMA	1	17.97	19.52	16	1	15.4	26
SMAJ17A	SMAJ17CA	SMA	1	19.08	20.72	17	1	14.5	27.6
SMAJ18A	SMAJ18CA	SMA	1	20.19	21.9	18	1	13.7	29.2
SMAJ20A	SMAJ20CA	SMA	1	22.41	24.28	20	1	12.3	32.4
SMAJ22A	SMAJ22CA	SMA	1	24.63	26.66	22	1	11.3	35.5
SMAJ24A	SMAJ24CA	SMA	1	26.95	29.23	24	1	10.3	38.9
SMAJ26A	SMAJ26CA	SMA	1	29.12	31.67	26	1	9.5	42.1
SMAJ28A	SMAJ28CA	SMA	1	31.33	34.16	28	1	8.8	45.4
SMAJ30A	SMAJ30CA	SMA	1	33.55	36.54	30	1	8.3	48.4
SMAJ33A	SMAJ33CA	SMA	1	36.98	40.3	33	1	7.5	53.3
SMAJ36A	SMAJ36CA	SMA	1	40.3	43.9	36	1	6.9	58.1
SMAJ40A	SMAJ40CA	SMA	1	44.7	48.8	40	1	6.2	64.5
SMAJ43A	SMAJ43CA	SMA	1	48.2	52.4	43	1	5.8	69.4
SMAJ45A	SMAJ45CA	SMA	1	50.4	54.9	45	1	5.5	72.7
SMAJ48A	SMAJ48CA	SMA	1	53.7	58.5	48	1	5.2	77.4
SMAJ51A	SMAJ51CA	SMA	1	57.1	62.3	51	1	4.9	82.4
SMAJ54A	SMAJ54CA	SMA	1	60.5	65.8	54	1	4.6	87.1
SMAJ58A	SMAJ58CA	SMA	1	64.9	70.7	58	1	4.3	93.6
SMAJ60A	SMAJ60CA	SMA	1	67.2	73.2	60	1	4.1	96.8
SMAJ64A	SMAJ64CA	SMA	1	71.6	78	64	1	3.9	103
SMAJ70A	SMAJ70CA	SMA	1	78.4	85.4	70	1	3.5	113
SMAJ75A	SMAJ75CA	SMA	1	83.9	91.5	75	1	3.3	121
SMAJ78A	SMAJ78CA	SMA	1	87.4	95.1	78	1	3.2	126
SMAJ85A	SMAJ85CA	SMA	1	95.1	103.3	85	1	2.9	137
SMCJ90A	SMCJ90CA	SMA	1	100	111	90	1	2.8	146
SMCJ100A	SMCJ100CA	SMA	1	111	123	100	1	2.5	162
SMCJ110A	SMCJ110CA	SMA	1	122	135	110	1	2.3	177
SMCJ120A	SMCJ120CA	SMA	1	133	147	120	1	2.1	193
SMCJ130A	SMCJ130CA	SMA	1	144	159	130	1	1.9	209
SMCJ150A	SMCJ150CA	SMA	1	167	185	150	1	1.7	243
SMCJ160A	SMCJ160CA	SMA	1	178	197	160	1	1.6	259
SMCJ170A	SMCJ170CA	SMA	1	189	209	170	1	1.5	275
SMCJ180A	SMCJ180CA	SMA	1	201	222	180	1	1.4	292
SMCJ190A	SMCJ190CA	SMA	1	209	231	190	1	1.4	304
SMCJ200A	SMCJ200CA	SMA	1	224	247	200	1	1.3	324
SMCJ220A	SMCJ220CA	SMA	1	246	272	220	1	1.1	356

600W TVS DIODES, P6SMAL SERIES

Package
SMAL



	SPEC	Requirement
Package	SMA (L-lead)	HF + UL94V0+RoHS +Pb free plating
Power	600W	10/1000 pulse
Tj	-65C~150C	
Tstg	150C	
ESD	30KV(Air) 30KV(contact)	IEC-61000-4-2

Uni-direction	Package	I_T (mA)	V_{BR} (V) --min.	V_{BR} (V) --max.	V_R (V)	I_R (uA) --max.	10/1000us Max peak pulse currnt I_{pp}(A)	10/1000us max clamp voltage V_C @ I_{pp} (V)
P6SMAL5.0A	SMAL	10	6.4	7	5	400	65.3	9.2
P6SMAL6.0A	SMAL	10	6.67	7.37	6	400	58.3	10.3
P6SMAL6.5A	SMAL	10	7.22	7.98	6.5	250	53.6	11.2
P6SMAL7.0A	SMAL	10	7.78	8.6	7	100	50	12
P6SMAL8.0A	SMAL	1	8.89	9.83	8	50	44.2	13.6
P6SMAL9.0A	SMAL	1	10	11.1	9	10	39	15.4
P6SMAL10A	SMAL	1	11.1	12.3	10	5	35.3	17
P6SMAL11A	SMAL	1	12.2	13.5	11	1	33	18.2
P6SMAL12A	SMAL	1	13.3	14.7	12	1	30.2	19.9
P6SMAL13A	SMAL	1	14.4	15.9	13	1	28	21.5
P6SMAL14A	SMAL	1	15.6	17.2	14	1	25.9	23.2
P6SMAL15A	SMAL	1	16.7	18.5	15	1	24.6	24.4
P6SMAL16A	SMAL	1	17.8	19.7	16	1	23.1	26
P6SMAL17A	SMAL	1	18.9	20.9	17	1	21.8	27.6
P6SMAL18A	SMAL	1	20	22.1	18	1	20.6	29.2
P6SMAL20A	SMAL	1	22.2	24.5	20	1	18.6	32.4
P6SMAL22A	SMAL	1	24.4	26.9	22	1	16.9	35.5
P6SMAL24A	SMAL	1	26.7	29.5	24	1	15.5	38.9
P6SMAL26A	SMAL	1	28.9	31.9	26	1	14.3	42.1
P6SMAL28A	SMAL	1	31.1	34.4	28	1	13.3	45.4
P6SMAL30A	SMAL	1	33.3	36.8	30	1	12.4	48.4
P6SMAL33A	SMAL	1	36.7	40.6	33	1	11.3	53.3
P6SMAL36A	SMAL	1	40	44.2	36	1	10.4	58.1
P6SMAL40A	SMAL	1	44.4	49.1	40	1	9.3	64.5
P6SMAL43A	SMAL	1	47.8	52.8	43	1	8.7	69.4
P6SMAL45A	SMAL	1	50	55.3	45	1	8.3	72.7
P6SMAL48A	SMAL	1	53.3	58.9	48	1	7.8	77.4
P6SMAL51A	SMAL	1	56.7	62.7	51	1	7.3	82.4
P6SMAL54A	SMAL	1	60	66.3	54	1	6.9	87.1
P6SMAL58A	SMAL	1	64.4	71.2	58	1	6.5	93.6
P6SMAL60A	SMAL	1	66.7	73.7	60	1	6.2	96.8
P6SMAL64A	SMAL	1	71.1	78.6	64	1	5.9	103
P6SMAL70A	SMAL	1	77.8	86	70	1	5.3	113
P6SMAL75A	SMAL	1	83.3	92.1	75	1	5	121
P6SMAL78A	SMAL	1	86.7	95.8	78	1	4.8	126
P6SMAL85A	SMAL	1	94.4	104	85	1	4.4	137

600W TVS DIODES, P6SMBJ SERIES

	SPEC	Requirement
Product	P6SMBJxxx	
Package	SMB (J-lead)	HF + UL94V0+RoHS +Pb free plating
Power	600W	10/1000 pulse
Tj	-65C~150C	
Tstg	-65C ~150C	
ESD	30KV(Air) 30KV(contact)	IEC-61000-4-2
IFSM	100A	8.3ms single half sine wave
VF max	3.5V	50A, single die

Uni-direction	Bi-direction	I_T (mA)	V_{BR} (V) --min.	V_{BR} (V) --max.	V_R (V)	I_R (uA) --max.	10/1000us Max peak pulse currnt I_{pp}(A)	10/1000us max clamp voltage V_C @ I_{pp} (V)
P6SMBJ5.0A	P6SMBJ5.0CA	10	6.45	6.98	5	400	65.3	9.2
P6SMBJ6.0A	P6SMBJ6.0CA	10	6.8	7.32	6	400	58.3	10.3
P6SMBJ6.5A	P6SMBJ6.5CA	10	7.27	7.92	6.5	250	53.6	11.2
P6SMBJ7.0A	P6SMBJ7.0CA	10	7.82	8.57	7	100	50	12
P6SMBJ8.0A	P6SMBJ8.0CA	1	8.95	9.76	8	50	44.2	13.6
P6SMBJ9.0A	P6SMBJ9.0CA	1	10.1	11	9	10	39	15.4
P6SMBJ10A	P6SMBJ10CA	1	11.21	12.19	10	5	35.3	17
P6SMBJ11A	P6SMBJ11CA	1	12.32	13.38	11	1	33	18.2
P6SMBJ12A	P6SMBJ12CA	1	13.43	14.57	12	1	30.2	19.9
P6SMBJ13A	P6SMBJ13CA	1	14.54	15.76	13	1	28	21.5
P6SMBJ14A	P6SMBJ14CA	1	15.75	17.04	14	1	25.9	23.2
P6SMBJ15A	P6SMBJ15CA	1	16.86	18.34	15	1	24.6	24.4
P6SMBJ16A	P6SMBJ16CA	1	17.97	19.52	16	1	23.1	26
P6SMBJ17A	P6SMBJ17CA	1	19.08	20.72	17	1	21.8	27.6
P6SMBJ18A	P6SMBJ18CA	1	20.19	21.9	18	1	20.6	29.2
P6SMBJ20A	P6SMBJ20CA	1	22.41	24.28	20	1	18.6	32.4
P6SMBJ22A	P6SMBJ22CA	1	24.63	26.66	22	1	16.9	35.5
P6SMBJ24A	P6SMBJ24CA	1	26.95	29.23	24	1	15.5	38.9
P6SMBJ26A	P6SMBJ26CA	1	29.12	31.67	26	1	14.3	42.1
P6SMBJ28A	P6SMBJ28CA	1	31.33	34.16	28	1	13.3	45.4
P6SMBJ30A	P6SMBJ30CA	1	33.55	36.54	30	1	12.4	48.4
P6SMBJ33A	P6SMBJ33CA	1	36.98	40.3	33	1	11.3	53.3
P6SMBJ36A	P6SMBJ36CA	1	40.3	43.9	36	1	10.4	58.1
P6SMBJ40A	P6SMBJ40CA	1	44.7	48.8	40	1	9.3	64.5
P6SMBJ43A	P6SMBJ43CA	1	48.2	52.4	43	1	8.7	69.4
P6SMBJ45A	P6SMBJ45CA	1	50.4	54.9	45	1	8.3	72.7
P6SMBJ48A	P6SMBJ48CA	1	53.7	58.5	48	1	7.8	77.4
P6SMBJ51A	P6SMBJ51CA	1	57.1	62.3	51	1	7.3	82.4
P6SMBJ54A	P6SMBJ54CA	1	60.5	65.8	54	1	6.9	87.1
P6SMBJ58A	P6SMBJ58CA	1	64.9	70.7	58	1	6.5	93.6
P6SMBJ60A	P6SMBJ60CA	1	67.2	73.2	60	1	6.2	96.8
P6SMBJ64A	P6SMBJ64CA	1	71.6	78	64	1	5.9	103
P6SMBJ70A	P6SMBJ70CA	1	78.4	85.4	70	1	5.3	113
P6SMBJ75A	P6SMBJ75CA	1	83.9	91.5	75	1	5	121
P6SMBJ78A	P6SMBJ78CA	1	87.4	95.1	78	1	4.8	126
P6SMBJ85A	P6SMBJ85CA	1	95.1	103.3	85	1	4.4	137
P6SMBJ90A	P6SMBJ90CA	1	100	111	90	1	4.1	146
P6SMBJ100A	P6SMBJ100CA	1	111	123	100	1	3.7	162
P6SMBJ110A	P6SMBJ110CA	1	122	135	110	1	3.4	177
P6SMBJ120A	P6SMBJ120CA	1	133	147	120	1	3.1	193
P6SMBJ130A	P6SMBJ130CA	1	144	159	130	1	2.9	209
P6SMBJ150A	P6SMBJ150CA	1	167	185	150	1	2.5	243
P6SMBJ160A	P6SMBJ160CA	1	178	197	160	1	2.3	259
P6SMBJ170A	P6SMBJ170CA	1	189	209	170	1	2.2	275
P6SMBJ180A	P6SMBJ180CA	1	201	222	180	1	2.1	292
P6SMBJ190A	P6SMBJ190CA	1	209	231	190	1	2	304
P6SMBJ200A	P6SMBJ200CA	1	224	247	200	1	1.9	324
P6SMBJ220A	P6SMBJ220CA	1	246	272	220	1	1.7	356

600W TVS DIODES, SMBJ SERIES

Package
SMB

	SPEC	Requirement
Package	SMB (J-lead)	HF + UL94V0+RoHS +Pb free plating
Power	600W	10/1000 pulse
Tj	-65C~150C	
Tstg	150C	
ESD	30KV(Air) 30KV(contact)	IEC-61000-4-2

Uni-direction	Bi-direction	Package	I_T (mA)	V_{BR} (V) --min.	V_{BR} (V) --max.	V_R (V)	I_R (uA) --max.	10/1000us Max peak pulse currnt I_{pp}(A)	10/1000us max clamp voltage V_C @ I_{pp} (V)
SMBJ5.0A	SMBJ5.0CA	SMB	10	6.45	6.98	5	400	65.3	9.2
SMBJ6.0A	SMBJ6.0CA	SMB	10	6.8	7.32	6	400	58.3	10.3
SMBJ6.5A	SMBJ6.5CA	SMB	10	7.27	7.92	6.5	250	53.6	11.2
SMBJ7.0A	SMBJ7.0CA	SMB	10	7.82	8.57	7	100	50	12
SMBJ8.0A	SMBJ8.0CA	SMB	1	8.95	9.76	8	50	44.2	13.6
SMBJ9.0A	SMBJ9.0CA	SMB	1	10.1	11	9	10	39	15.4
SMBJ10A	SMBJ10CA	SMB	1	11.21	12.19	10	5	35.3	17
SMBJ11A	SMBJ11CA	SMB	1	12.32	13.38	11	1	33	18.2
SMBJ12A	SMBJ12CA	SMB	1	13.43	14.57	12	1	30.2	19.9
SMBJ13A	SMBJ13CA	SMB	1	14.54	15.76	13	1	28	21.5
SMBJ14A	SMBJ14CA	SMB	1	15.75	17.04	14	1	25.9	23.2
SMBJ15A	SMBJ15CA	SMB	1	16.86	18.34	15	1	24.6	24.4
SMBJ16A	SMBJ16CA	SMB	1	17.97	19.52	16	1	23.1	26
SMBJ17A	SMBJ17CA	SMB	1	19.08	20.72	17	1	21.8	27.6
SMBJ18A	SMBJ18CA	SMB	1	20.19	21.9	18	1	20.6	29.2
SMBJ20A	SMBJ20CA	SMB	1	22.41	24.28	20	1	18.6	32.4
SMBJ22A	SMBJ22CA	SMB	1	24.63	26.66	22	1	16.9	35.5
SMBJ24A	SMBJ24CA	SMB	1	26.95	29.23	24	1	15.5	38.9
SMBJ26A	SMBJ26CA	SMB	1	29.12	31.67	26	1	14.3	42.1
SMBJ28A	SMBJ28CA	SMB	1	31.33	34.16	28	1	13.3	45.4
SMBJ30A	SMBJ30CA	SMB	1	33.55	36.54	30	1	12.4	48.4
SMBJ33A	SMBJ33CA	SMB	1	36.98	40.3	33	1	11.3	53.3
SMBJ36A	SMBJ36CA	SMB	1	40.3	43.9	36	1	10.4	58.1
SMBJ40A	SMBJ40CA	SMB	1	44.7	48.8	40	1	9.3	64.5
SMBJ43A	SMBJ43CA	SMB	1	48.2	52.4	43	1	8.7	69.4
SMBJ45A	SMBJ45CA	SMB	1	50.4	54.9	45	1	8.3	72.7
SMBJ48A	SMBJ48CA	SMB	1	53.7	58.5	48	1	7.8	77.4
SMBJ51A	SMBJ51CA	SMB	1	57.1	62.3	51	1	7.3	82.4
SMBJ54A	SMBJ54CA	SMB	1	60.5	65.8	54	1	6.9	87.1
SMBJ58A	SMBJ58CA	SMB	1	64.9	70.7	58	1	6.5	93.6
SMBJ60A	SMBJ60CA	SMB	1	67.2	73.2	60	1	6.2	96.8
SMBJ64A	SMBJ64CA	SMB	1	71.6	78	64	1	5.9	103
SMBJ70A	SMBJ70CA	SMB	1	78.4	85.4	70	1	5.3	113
SMBJ75A	SMBJ75CA	SMB	1	83.9	91.5	75	1	5	121
SMBJ78A	SMBJ78CA	SMB	1	87.4	95.1	78	1	4.8	126
SMBJ85A	SMBJ85CA	SMB	1	95.1	103.3	85	1	4.4	137

1000W TVS DIODES, P1KSMBJ SERIES

	SPEC	Requirement
Package	SMB (J-lead)	HF + UL94V0+RoHS +Pb free plating
Power	1000W	10/1000 pulse
Tj	-65C~150C	
Tstg	175C	
ESD	30KV(Air) 30KV(contact)	IEC-61000-4-2
IFSM	120A	8.3ms single half sine wave
VF max	3.5V	50A, single die

Uni-direction	Bi-direction	I_T (mA)	V_{BR} (V) --min.	V_{BR} (V) --max.	V_R (V)	I_R (uA) --max.	10/1000us Max peak pulse currnt I_{pp}(A)	10/1000us max clamp voltage V_C @ I_{pp} (V)
P1KSMBJ6.8A	P1KSMBJ6.8CA	10	6.45	7.14	5.8	900	95.2	10.5
P1KSMBJ7.5A	P1KSMBJ7.5CA	10	7.13	7.88	6.4	400	88.5	11.3
P1KSMBJ8.2A	P1KSMBJ8.2CA	10	7.79	8.61	7.02	180	82.6	12.1
P1KSMBJ9.1A	P1KSMBJ9.1CA	1	8.65	9.55	7.78	45	74.6	13.4
P1KSMBJ10A	P1KSMBJ10CA	1	9.5	10.5	8.55	8	69	14.5
P1KSMBJ11A	P1KSMBJ11CA	1	10.5	11.6	9.4	4	64.1	15.6
P1KSMBJ12A	P1KSMBJ12CA	1	11.4	12.6	10.2	1	59.9	16.7
P1KSMBJ13A	P1KSMBJ13CA	1	12.4	13.7	11.1	1	54.9	18.2
P1KSMBJ15A	P1KSMBJ15CA	1	14.3	15.8	12.8	1	47.2	21.2
P1KSMBJ16A	P1KSMBJ16CA	1	15.2	16.8	13.6	1	44.4	22.5
P1KSMBJ18A	P1KSMBJ18CA	1	17.1	18.9	15.3	1	39.2	25.5
P1KSMBJ20A	P1KSMBJ20CA	1	19	21	17.1	1	36.1	27.7
P1KSMBJ22A	P1KSMBJ22CA	1	20.9	23.1	18.8	1	32.7	30.6
P1KSMBJ24A	P1KSMBJ24CA	1	22.8	25.2	20.5	1	30.1	33.2
P1KSMBJ27A	P1KSMBJ27CA	1	25.7	28.4	23.1	1	26.7	37.5
P1KSMBJ30A	P1KSMBJ30CA	1	28.5	31.5	25.6	1	24.2	41.4
P1KSMBJ33A	P1KSMBJ33CA	1	31.4	34.7	28.2	1	21.9	45.7
P1KSMBJ36A	P1KSMBJ36CA	1	34.2	37.8	30.8	1	20	49.9
P1KSMBJ39A	P1KSMBJ39CA	1	37.1	41	33.3	1	18.6	53.9
P1KSMBJ43A	P1KSMBJ43CA	1	40.9	45.2	36.8	1	16.9	59.3
P1KSMBJ47A	P1KSMBJ47CA	1	44.7	49.4	40.2	1	15.4	64.8
P1KSMBJ51A	P1KSMBJ51CA	1	48.5	53.6	43.6	1	14.3	70.1
P1KSMBJ56A	P1KSMBJ56CA	1	53.2	58.8	47.8	1	13	77
P1KSMBJ62A	P1KSMBJ62CA	1	58.9	65.1	53	1	11.8	85
P1KSMBJ68A	P1KSMBJ68CA	1	64.6	71.4	58.1	1	10.9	92
P1KSMBJ75A	P1KSMBJ75CA	1	71.3	78.8	64.1	1	9.7	103
P1KSMBJ82A	P1KSMBJ82CA	1	77.9	86.1	70.1	1	8.8	113
P1KSMBJ91A	P1KSMBJ91CA	1	86.5	95.5	77.8	1	8	125
P1KSMBJ100A	P1KSMBJ100CA	1	95	105	85.5	1	7.3	137

1500W TVS DIODES, SMCJ SERIES

Package
SMC

	SPEC	Requirement
Package	SMC	HF + UL94V0+RoHS +Pb free plating
Power	1500W	10/1000 pulse
Tj	-65C~150C	
Tstg	175C	
ESD	30KV(Air) 30KV(contact)	IEC-61000-4-2

Uni-direction	Bi-direction	Package	I_T (mA)	V_{BR} (V) --min.	V_{BR} (V) --max.	V_R (V)	I_R (uA) --max.	10/1000us Max peak pulse currnt I_{pp}(A)	10/1000us max clamp voltage V_C @ I_{pp} (V)
SMCJ5.0A	SMCJ5.0CA	SMC	10	6.45	6.98	5	400	163	9.2
SMCJ6.0A	SMCJ6.0CA	SMC	10	6.8	7.32	6	400	145.7	10.3
SMCJ6.5A	SMCJ6.5CA	SMC	10	7.27	7.92	6.5	250	134	11.2
SMCJ7.0A	SMCJ7.0CA	SMC	10	7.82	8.57	7	200	125	12
SMCJ8.0A	SMCJ8.0CA	SMC	1	8.95	9.76	8	100	110.3	13.6
SMCJ9.0A	SMCJ9.0CA	SMC	1	10.1	11	9	10	97.4	15.4
SMCJ10A	SMCJ10CA	SMC	1	11.21	12.19	10	5	88.3	17
SMCJ11A	SMCJ11CA	SMC	1	12.32	13.38	11	1	82.5	18.2
SMCJ12A	SMCJ12CA	SMC	1	13.43	14.57	12	1	75.4	19.9
SMCJ13A	SMCJ13CA	SMC	1	14.54	15.76	13	1	69.8	21.5
SMCJ14A	SMCJ14CA	SMC	1	15.75	17.04	14	1	64.7	23.2
SMCJ15A	SMCJ15CA	SMC	1	16.86	18.33	15	1	61.5	24.4
SMCJ16A	SMCJ16CA	SMC	1	17.93	19.56	16	1	57.7	26
SMCJ17A	SMCJ17CA	SMC	1	19.05	20.76	17	1	54.4	27.6
SMCJ18A	SMCJ18CA	SMC	1	20.19	21.9	18	1	51.4	29.2
SMCJ20A	SMCJ20CA	SMC	1	22.41	24.28	20	1	46.3	32.4
SMCJ22A	SMCJ22CA	SMC	1	24.63	26.66	22	1	42.3	35.5
SMCJ24A	SMCJ24CA	SMC	1	26.95	29.23	24	1	38.6	38.9
SMCJ26A	SMCJ26CA	SMC	1	29.12	31.67	26	1	35.7	42.1
SMCJ28A	SMCJ28CA	SMC	1	31.33	34.16	28	1	33.1	45.4
SMCJ30A	SMCJ30CA	SMC	1	33.55	36.54	30	1	31	48.4
SMCJ33A	SMCJ33CA	SMC	1	36.98	40.3	33	1	28.2	53.3
SMCJ36A	SMCJ36CA	SMC	1	40.3	43.9	36	1	25.9	58.1
SMCJ40A	SMCJ40CA	SMC	1	44.7	48.8	40	1	23.3	64.5
SMCJ43A	SMCJ43CA	SMC	1	48.2	52.4	43	1	21.7	69.4
SMCJ45A	SMCJ45CA	SMC	1	50.4	54.9	45	1	20.6	72.7
SMCJ48A	SMCJ48CA	SMC	1	53.8	58.4	48	1	19.4	77.4
SMCJ51A	SMCJ51CA	SMC	1	57.2	62.1	51	1	18.2	82.4
SMCJ54A	SMCJ54CA	SMC	1	60.5	65.7	54	1	17.3	87.1
SMCJ58A	SMCJ58CA	SMC	1	65	70.6	58	1	16.1	93.6
SMCJ60A	SMCJ60CA	SMC	1	67.3	73	60	1	15.5	96.8
SMCJ64A	SMCJ64CA	SMC	1	71.6	78	64	1	14.6	103
SMCJ70A	SMCJ70CA	SMC	1	78.5	85.2	70	1	13.3	113
SMCJ75A	SMCJ75CA	SMC	1	83.9	91.5	75	1	12.4	121
SMCJ78A	SMCJ78CA	SMC	1	87.4	95.1	78	1	11.9	126
SMCJ85A	SMCJ85CA	SMC	1	95.1	103.2	85	1	11	137
SMCJ90A	SMCJ90CA	SMC	1	100	111	90	1	10.3	146
SMCJ100A	SMCJ100CA	SMC	1	111	123	100	1	9.3	162
SMCJ110A	SMCJ110CA	SMC	1	122	135	110	1	8.5	177
SMCJ120A	SMCJ120CA	SMC	1	133	147	120	1	7.8	193
SMCJ130A	SMCJ130CA	SMC	1	144	159	130	1	7.2	209
SMCJ150A	SMCJ150CA	SMC	1	167	185	150	1	6.2	243
SMCJ160A	SMCJ160CA	SMC	1	178	197	160	1	5.8	259
SMCJ170A	SMCJ170CA	SMC	1	189	209	170	1	5.5	275
SMCJ180A	SMCJ180CA	SMC	1	201	222	180	1	5.2	292
SMCJ190A	SMCJ190CA	SMC	1	209	231	190	1	4.9	307
SMCJ200A	SMCJ200CA	SMC	1	224	247	200	1	4.7	324
SMCJ220A	SMCJ220CA	SMC	1	246	272	220	1	4.2	356

3000W TVS DIODES, SMDJ SERIES

Package
SMC

	SPEC	Requirement
Package	SMC(J lead)	HF + UL94V0+RoHS +Pb free plating
Power	3000W	10/1000 pulse
Tj	-65C~150C	
Tstg	150C	
ESD	30KV(Air) 30KV(contact)	IEC-61000-4-2

Uni-direction	Bi-direction	Package	I_T (mA)	V_{BR} (V) --min.	V_{BR} (V) --max.	V_R (V)	I_R (uA) --max.	10/1000us Max peak pulse currnt I_{pp}(A)	10/1000us max clamp voltage V_C @ I_{pp} (V)
SMDJ9.0A	SMDJ9.0CA	SMC	1	10.1	11	9	10	194.8	15.4
SMDJ10A	SMDJ10CA	SMC	1	11.21	12.19	10	3.5	176.5	17
SMDJ11A	SMDJ11CA	SMC	1	12.32	13.33	11	2	164.8	18.2
SMDJ12A	SMDJ12CA	SMC	1	13.48	14.57	12	2	150.8	19.9
SMDJ13A	SMDJ13CA	SMC	1	14.54	15.76	13	2	139.5	21.5
SMDJ14A	SMDJ14CA	SMC	1	15.75	17.04	14	2	129.3	23.2
SMDJ15A	SMDJ15CA	SMC	1	16.86	18.33	15	2	123	24.4
SMDJ16A	SMDJ16CA	SMC	1	17.94	19.56	16	2	115.4	26
SMDJ17A	SMDJ17CA	SMC	1	19.04	20.75	17	2	108.7	27.6
SMDJ18A	SMDJ18CA	SMC	1	20.19	21.9	18	2	102.7	29.2
SMDJ20A	SMDJ20CA	SMC	1	22.41	24.28	20	2	92.6	32.4
SMDJ22A	SMDJ22CA	SMC	1	24.59	26.71	22	2	84.5	35.5
SMDJ24A	SMDJ24CA	SMC	1	26.9	29.18	24	2	77.1	38.9
SMDJ26A	SMDJ26CA	SMC	1	29.12	31.68	26	2	71.3	42.1
SMDJ28A	SMDJ28CA	SMC	1	31.34	34.16	28	2	66.1	45.4
SMDJ30A	SMDJ30CA	SMC	1	33.6	36.59	30	2	62	48.4
SMDJ33A	SMDJ33CA	SMC	1	36.98	40.3	33	2	56.3	53.3
SMDJ36A	SMDJ36CA	SMC	1	40.3	43.9	36	2	51.6	58.1
SMDJ40A	SMDJ40CA	SMC	1	44.8	48.8	40	2	46.5	64.5
SMDJ43A	SMDJ43CA	SMC	1	48.2	52.4	43	2	43.2	69.4
SMDJ45A	SMDJ45CA	SMC	1	50.4	54.9	45	2	41.3	72.7
SMDJ48A	SMDJ48CA	SMC	1	53.7	58.5	48	2	38.8	77.4
SMDJ51A	SMDJ51CA	SMC	1	57.1	62.3	51	2	36.4	82.4
SMDJ54A	SMDJ54CA	SMC	1	60.5	65.8	54	2	34.4	87.1
SMDJ58A	SMDJ58CA	SMC	1	64.9	70.7	58	2	32.1	93.6
SMDJ60A	SMDJ60CA	SMC	1	67.2	73.2	60	2	31	96.8
SMDJ64A	SMDJ64CA	SMC	1	71.6	78	64	2	29.1	103
SMDJ70A	SMDJ70CA	SMC	1	78.4	85.4	70	2	26.5	113
SMDJ75A	SMDJ75CA	SMC	1	83.9	91.5	75	2	24.8	121
SMDJ78A	SMDJ78CA	SMC	1	87.4	95.1	78	2	23.8	126
SMDJ85A	SMDJ85CA	SMC	1	95.2	103.3	85	2	21.9	137

5000W TVS DIODES, 5.0SMDJ SERIES

	SPEC	Requirement
Package	SMC(J lead)	HF + UL94V0+RoHS +Pb free plating
Power	5000W	10/1000 pulse
Tj	-65C~150C	
Tstg	175C	
ESD	30KV(Air) 30KV(contact)	IEC-61000-4-2
IFSM	300A	8.3ms single half sine wave
VF max	5V	single die @100A

Uni-direction	Bi-direction	I_T (mA)	V_{BR} (V) --min.	V_{BR} (V) --max.	V_R (V)	I_R (uA) --max.	10/1000us Max peak pulse currnt I_{pp}(A)	10/1000us max clamp voltage V_C @ I_{pp} (V)
5.0SMDJ12A	5.0SMDJ12CA	1	13.3	14.7	12	1	252	19.9
5.0SMDJ13A	5.0SMDJ13CA	1	14.4	15.9	13	1	233	21.5
5.0SMDJ14A	5.0SMDJ14CA	1	15.6	17.2	14	1	216	23.2
5.0SMDJ15A	5.0SMDJ15CA	1	16.7	18.5	15	1	205	24.4
5.0SMDJ16A	5.0SMDJ16CA	1	17.8	19.7	16	1	193	26
5.0SMDJ17A	5.0SMDJ17CA	1	18.9	20.9	17	1	181	27.6
5.0SMDJ18A	5.0SMDJ18CA	1	20	22.1	18	1	172	29.3
5.0SMDJ20A	5.0SMDJ20CA	1	22.2	24.5	20	1	155	32.4
5.0SMDJ22A	5.0SMDJ22CA	1	24.4	26.9	22	1	141	35.5
5.0SMDJ24A	5.0SMDJ24CA	1	26.7	29.5	24	1	129	38.9
5.0SMDJ26A	5.0SMDJ26CA	1	28.9	31.9	26	1	119	42.1
5.0SMDJ28A	5.0SMDJ28CA	1	31.1	34.4	28	1	110	45.4
5.0SMDJ30A	5.0SMDJ30CA	1	33.3	36.8	30	1	103	48.4
5.0SMDJ33A	5.0SMDJ33CA	1	36.7	40.6	33	1	93.9	53.3
5.0SMDJ36A	5.0SMDJ36CA	1	40	44.2	36	1	86.1	58.1
5.0SMDJ40A	5.0SMDJ40CA	1	44.4	49.1	40	1	77.6	64.5
5.0SMDJ43A	5.0SMDJ43CA	1	47.8	52.8	43	1	72.1	69.4
5.0SMDJ45A	5.0SMDJ45CA	1	50	55.3	45	1	68.8	72.7
5.0SMDJ48A	5.0SMDJ48CA	1	53.3	58.9	48	1	64.7	77.4
5.0SMDJ51A	5.0SMDJ51CA	1	56.7	62.7	51	1	60.7	82.4
5.0SMDJ54A	5.0SMDJ54CA	1	60	66.3	54	1	57.5	87.1
5.0SMDJ58A	5.0SMDJ58CA	1	64.4	71.2	58	1	53.5	93.6
5.0SMDJ60A	5.0SMDJ60CA	1	66.7	73.7	60	1	51.7	96.8
5.0SMDJ64A	5.0SMDJ64CA	1	71.1	78.6	64	1	48.6	103
5.0SMDJ70A	5.0SMDJ70CA	1	77.8	86	70	1	44.3	113
5.0SMDJ75A	5.0SMDJ75CA	1	83.3	92.1	75	1	41.4	121
5.0SMDJ78A	5.0SMDJ78CA	1	86.7	95.8	78	1	39.7	126
5.0SMDJ85A	5.0SMDJ85CA	1	94.4	104	85	1	36.5	137
5.0SMDJ90A	5.0SMDJ90CA	1	100	111	90	1	34.3	146
5.0SMDJ100A	5.0SMDJ100CA	1	111	123	100	1	30.9	162
5.0SMDJ110A	5.0SMDJ110CA	1	122	135	110	1	28.3	177
5.0SMDJ120A	5.0SMDJ120CA	1	133	147	120	1	26	193
5.0SMD130A	5.0SMD130CA	1	144	159	130	1	24	209
5.0SMDJ150A	5.0SMDJ150CA	1	167	185	150	1	20.6	243
5.0SMDJ160A	5.0SMDJ160CA	1	178	197	160	1	19.3	259
5.0SMDJ170A	5.0SMDJ170CA	1	189	209	170	1	18.2	275

6000W TVS DIODES, SM8S SERIES

	SPEC	Requirement
Package	SM8S(J lead)	HF + UL94V0+RoHS +Pb free plating
Power	6600W	10/1000 pulse
Tj	-65C~175C	
Tstg	175C	
ESD	30KV(Air) 30KV(contact)	IEC-61000-4-2
IFSM	700A	8.3ms single half sine wave
VF max		single die @100A

Uni-direction	Bi-direction	I_T (mA)	V_{BR} (V) --min.	V_{BR} (V) --max.	V_R (V)	I_R (uA) --max.	10/1000us Max peak pulse currnt I_{pp}(A)	10/1000us max clamp voltage V_C @ I_{pp} (V)
SM8S10A	SM8S10CA	5	11.1	12.3	10	15	388	17
SM8S11A	SM8S11CA	5	12.2	13.5	11	10	363	18.2
SM8S12A	SM8S12CA	5	13.3	14.7	12	10	332	19.9
SM8S13A	SM8S13CA	5	14.4	15.9	13	10	307	21.5
SM8S14A	SM8S14CA	5	15.6	17.2	14	10	284	23.2
SM8S15A	SM8S15CA	5	16.7	18.5	15	10	270	24.4
SM8S16A	SM8S16CA	5	17.8	19.7	16	10	254	26
SM8S17A	SM8S17CA	5	18.9	20.9	17	10	239	27.6
SM8S18A	SM8S18CA	5	20	22.1	18	10	226	29.2
SM8S20A	SM8S20CA	5	22.2	24.5	20	10	204	32.4
SM8S22A	SM8S22CA	5	24.4	26.9	22	10	186	35.5
SM8S24A	SM8S24CA	5	26.7	29.5	24	10	170	38.9
SM8S26A	SM8S26CA	5	28.9	31.9	26	10	157	42.1
SM8S28A	SM8S28CA	5	31.1	34.4	28	10	145	45.4
SM8S30A	SM8S30CA	5	33.3	36.8	30	10	136	48.4
SM8S33A	SM8S33CA	5	36.7	40.6	33	10	124	53.3
SM8S36A	SM8S36CA	5	40	44.2	36	10	114	58.1
SM8S40A	SM8S40CA	5	44.4	49.1	40	10	102	64.5
SM8S43A	SM8S43CA	5	47.8	52.8	43	10	95.1	69.4

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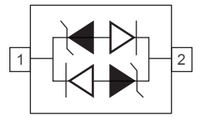
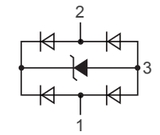
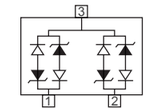
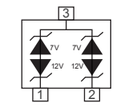
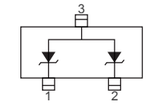
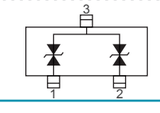
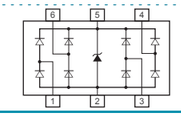
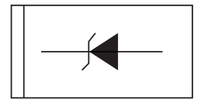
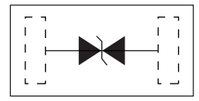
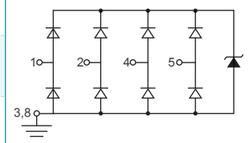
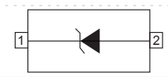
07

Electro-Static Discharge Diodes

Part No.	Package outline	V_{RWM} (V)	V_{BR} (Min)	I_{PP}@8/20μs (A)	V_{CL}@I_{PP} (V)	I_{Rmax}@V_{RWM} (uA)	C_{Jmax}@0V/1$_{MHz}$ (pF)	P_{ppm}@8/20μs (W)	Diagram
SOD323 Package:									
ESDALD03BC		3.3	4.5	20	20	1	0.8	400	
ESDALD05BC		5	6.5	15	21	1	0.8	315	
ESDALD08BC		8	8.5	15	25	1	0.8	375	
ESDALD12BC		12	13.3	10	35	1	0.8	350	
ESDALD15BC		15	16.5	8	45	1	0.8	360	
ESDALD18BC		18	19.0	8	44	1	0.8	352	
ESDALD24BC		24	26.0	6	55	1	0.8	330	
ESDALD36BC		36	38.0	3	70	1	0.8	210	
SOT23-3 Package:									
ESDALD05UE2		5	6.0	4	15	0.1	0.8	60	
ESDALD05BE2		5	6.5	15	21	0.2	0.8	315	
ESDAHD712BE2		12/7	13.3/7.5	19	30	20	75	570	
ESDAHD03UE2		3	4	20	15	1	195	300	
ESDAHD05UE2		5	6	16	19	1	150	304	
ESDAHD12UE2		12	13.3	11	32	1	120	352	
ESDAHD24UE2		24	26	7	52	1	60	364	
ESDAHD05BE2		5	6.5	22	22	1	120	484	
ESDAHD12BE2		12	13.3	16	30	1	70	480	
ESDAHD24BE2		24	26	8	48	1	30	384	
SOT23-6 Package:									
ESDALD05UD4		5	6.0	5.5	16	0.1	1	88	

Part No.	Package outline	V_{RWM} (V)	V_{BR} (Min)	I_{PP}@8/20μs (A)	V_{CL}@I_{PP} (V)	I_{Rmax}@V_{RWM} (uA)	C_{Jmax}@0V/1_{MHz} (pF)	P_{ppm}@8/20μs (W)	Diagram
DFN1006 Package:									
ESDHD03UF		3.3	4.0	24	12	1	200	288	
ESDHD05UF		5	6.0	20	16	0.1	150 typ.	320	
ESDHD12UF		12	13.3	8	26	1	80	208	
ESDHD15UF		15	16.4	7	35	1	50	245	
ESDHD24UF		24	26.0	5	48	1	40	240	
ESDHD36UF		36	38.0	5	70	1	40	350	
ESDHD03BF		3.3	4.0	8	10	1	15	80	
ESDHD05BF		5	5.5	7	11	1	15	77	
ESDHD12BF		12	13.0	6	25	1	15	150	
ESDHD15BF		15	16.5	7	35	1	15	245	
ESDHD24BF		24	26.0	5	48	1	15	240	
ESDUD05BF		5	6.0	4	22	0.1	0.5	88	
ESDUDS03BF		3.3	3.6	5	10	1	0.4	50	
ESDUDS05BF		5	5.6	5	10	1	0.4	50	
DFN2510 Package:									
ESDALD05UG4		5	6.0	4	15	0.1	1	60	
ESDAUDS03UG4		3.3	3.6	4	8	1	0.58	32	
ESDAUDS05UG4		5	5.6	4	8	1	0.58	32	
SOD523 Package:									
ESDHD03UB		3.3	4.0	25	12	1	180	300	
ESDHD05UB		5	5.9	16	15	1	160	240	
ESDHD12UB		12	13.3	7	30	1	80	210	
ESDHD15UB		15	16.5	6	35	1	40	210	
ESDHD24UB		24	25.9	4	48	1	30	192	
ESDHD36UB		36	38.0	3	70	1	20	210	
ESDHD03BB		3.3	3.7	10	9	1	15	90	
ESDHD05BB		5	5.6	9	10	1	15	90	