

Fig. 3. Average forward current as a function of mounting base temperature; maximum values; per diode

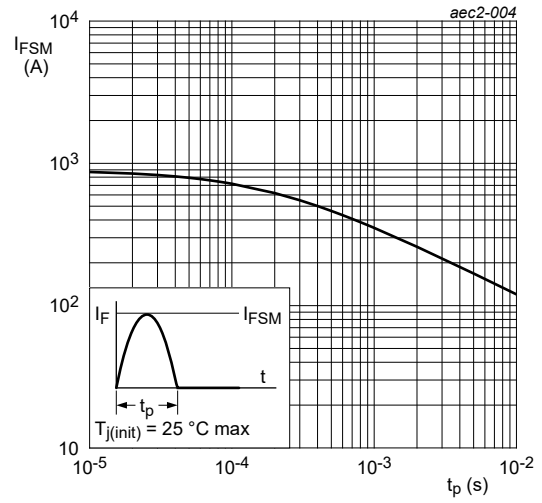


Fig. 4. Non-repetitive peak forward current as a function of pulse width; sinusoidal waveform; maximum values; per diode

8. Thermal characteristics

Table 5. Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$R_{th(j-mb)}$	thermal resistance from junction to mounting base	per diode; Fig. 5	-	-	3.5	K/W
		both diodes conducting	-	-	1.8	K/W
$R_{th(j-a)}$	thermal resistance from junction to ambient	in free air	-	60	-	K/W

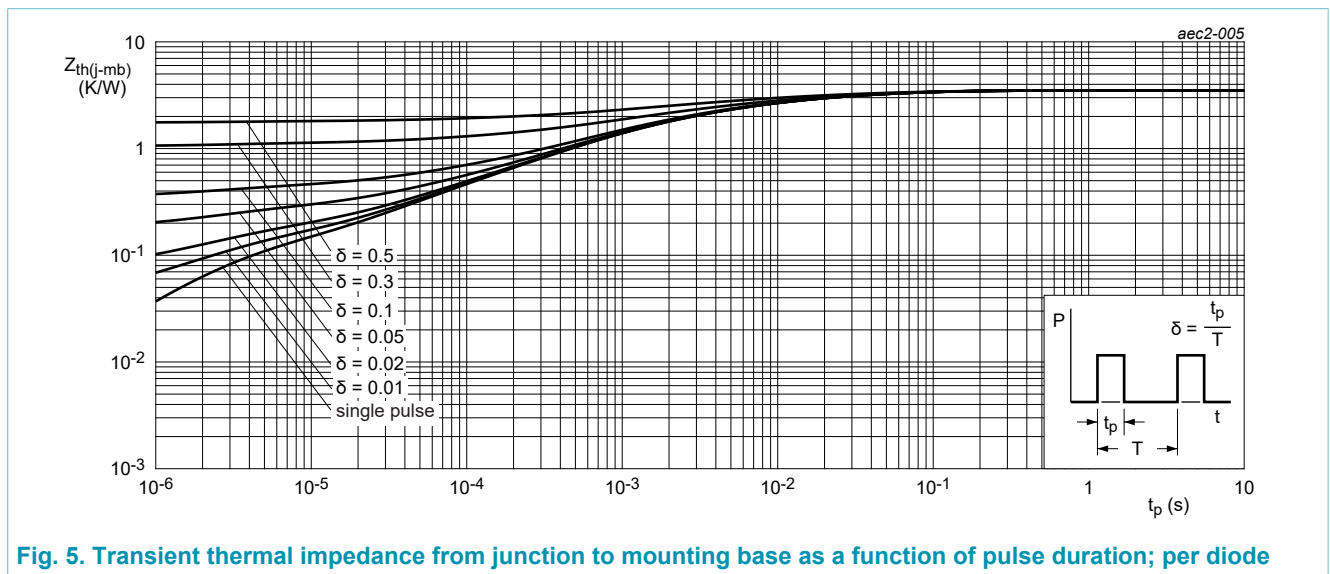
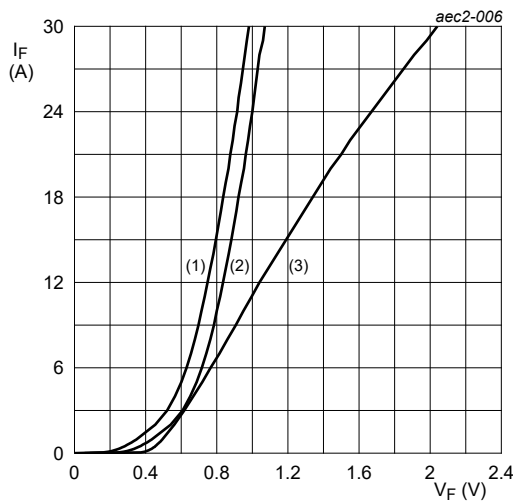


Fig. 5. Transient thermal impedance from junction to mounting base as a function of pulse duration; per diode

9. Characteristics

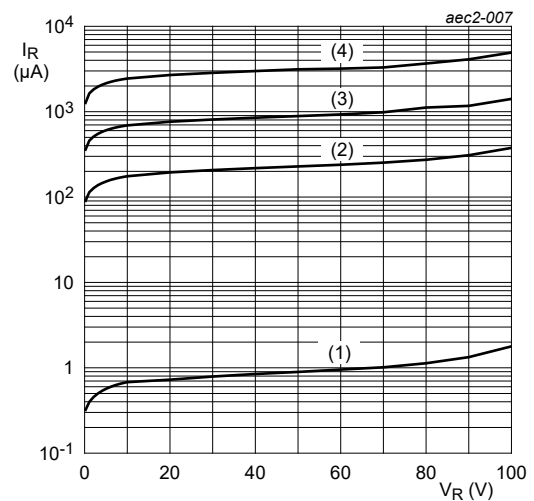
Table 6. Characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
Static characteristics						
V_F	forward voltage	$I_F = 3\text{ A}; T_j = 25\text{ °C};$ Fig. 6; per diode	-	0.56	0.61	V
		$I_F = 3\text{ A}; T_j = 125\text{ °C};$ Fig. 6; per diode	-	0.53	0.58	V
		$I_F = 10\text{ A}; T_j = 25\text{ °C};$ Fig. 6; per diode	-	0.89	0.95	V
		$I_F = 10\text{ A}; T_j = 125\text{ °C};$ Fig. 6; per diode	-	0.73	0.8	V
I_R	reverse current	$V_R = 100\text{ V}; T_j = 25\text{ °C};$ Fig. 7; Fig. 8; per diode	-	-	50	μA
		$V_R = 100\text{ V}; T_j = 125\text{ °C};$ Fig. 7; Fig. 8; per diode	-	-	10	mA



$V_o = 0.623\text{ V}; R_s = 0.0166\ \Omega$
 (1) $T_j = 150\text{ °C};$ typical values
 (2) $T_j = 150\text{ °C};$ maximum values
 (3) $T_j = 25\text{ °C};$ maximum values

Fig. 6. Forward current as a function of forward voltage; per diode



(1) $T_j = 25\text{ °C};$ typical values
 (2) $T_j = 100\text{ °C};$ typical values
 (3) $T_j = 125\text{ °C};$ typical values
 (4) $T_j = 150\text{ °C};$ typical values

Fig. 7. Reverse leakage current as a function of reverse voltage; per diode; typical values

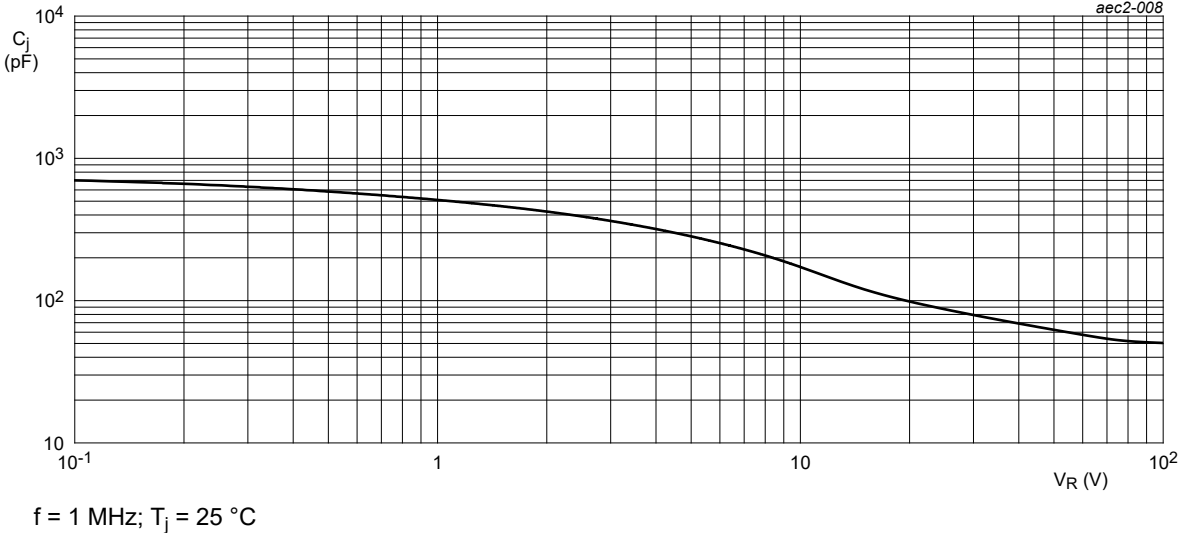


Fig. 8. Junction capacitance as a function of applied reverse voltage; per diode; typical values

11. Legal information

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Document status [1][2]	Product status [3]	Definition
Objective [short] data sheet	Development	This document contains data from the objective specification for product development.
Preliminary [short] data sheet	Qualification	This document contains data from the preliminary specification.
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