

**ELECTRICAL CHARACTERISTICS** ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

PARAMETER	TEST CONDITIONS	SYMBOL	RS1PB	RS1PD	RS1PG	RS1PJ	UNIT
Maximum instantaneous forward voltage	$I_F = 1.0\text{ A}$	V_F ⁽¹⁾	1.3				V
Maximum reverse current at rated V_R voltage	$T_A = 25\text{ }^\circ\text{C}$	I_R ⁽²⁾	1.0				μA
	$T_A = 125\text{ }^\circ\text{C}$		60				
Maximum reverse recovery time	$I_F = 0.5\text{ A}$, $I_R = 1.0\text{ A}$, $I_{rr} = 0.25\text{ A}$	t_{rr}	150			250	ns
Typical junction capacitance	4.0 V, 1 MHz	C_J	9				pF

Notes(1) Pulse test: 300 μs pulse width, 1 % duty cycle(2) Pulse test: Pulse width $\leq 40\text{ ms}$ **THERMAL CHARACTERISTICS** ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	RS1PB	RS1PD	RS1PG	RS1PJ	UNIT
Typical thermal resistance	$R_{\theta JA}$ ⁽¹⁾	115				$^\circ\text{C/W}$
	$R_{\theta JL}$ ⁽¹⁾	15				
	$R_{\theta JC}$ ⁽¹⁾	20				

Note(1) Thermal resistance from junction to ambient and junction to lead mounted on PCB with 5.0 mm x 5.0 mm copper pad areas. $R_{\theta JL}$ is measured at the terminal of cathode band. $R_{\theta JC}$ is measured at the top center of the body**ORDERING INFORMATION** (Example)

PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
RS1PB-M3/84A	0.024	84A	3000	7" diameter plastic tape and reel
RS1PB-M3/85A	0.024	85A	10 000	13" diameter plastic tape and reel
RS1PBHM3/84A ⁽¹⁾	0.024	84A	3000	7" diameter plastic tape and reel
RS1PBHM3/85A ⁽¹⁾	0.024	85A	10 000	13" diameter plastic tape and reel
RS1PBHM3_A/H ⁽¹⁾	0.024	H	3000	7" diameter plastic tape and reel
RS1PBHM3_A/I ⁽¹⁾	0.024	I	10 000	13" diameter plastic tape and reel

Note

(1) AEC-Q101 qualified



RATINGS AND CHARACTERISTICS CURVES ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

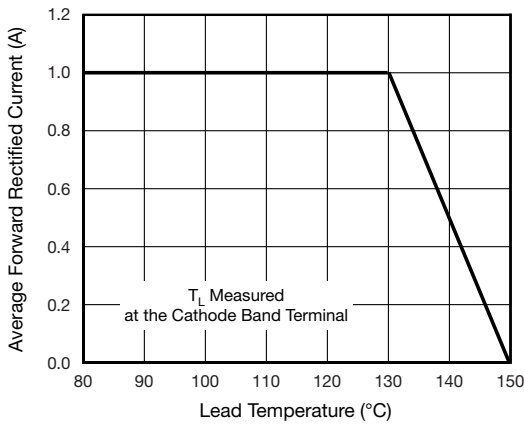


Fig. 1 - Maximum Forward Current Derating Curve

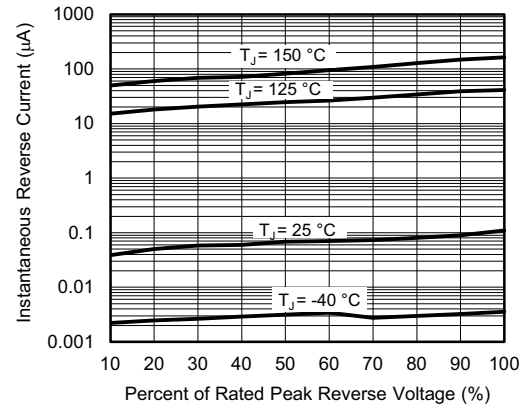


Fig. 4 - Typical Reverse Characteristics

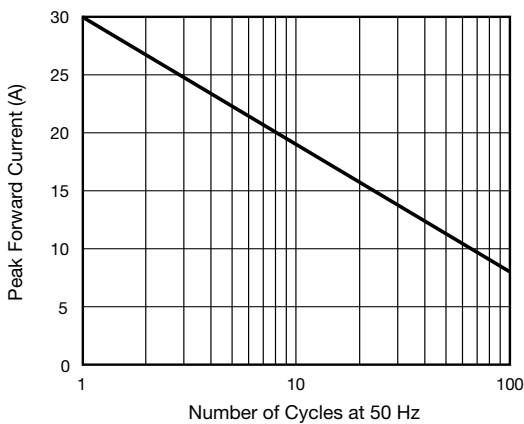


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

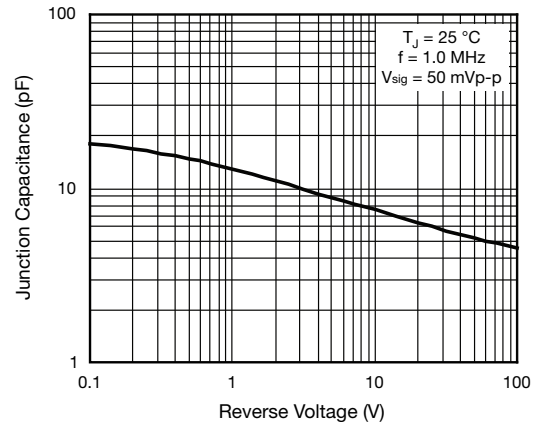


Fig. 5 - Typical Junction Capacitance

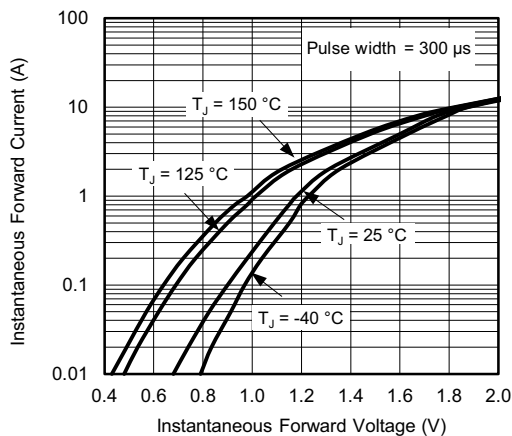


Fig. 3 - Typical Instantaneous Forward Characteristics

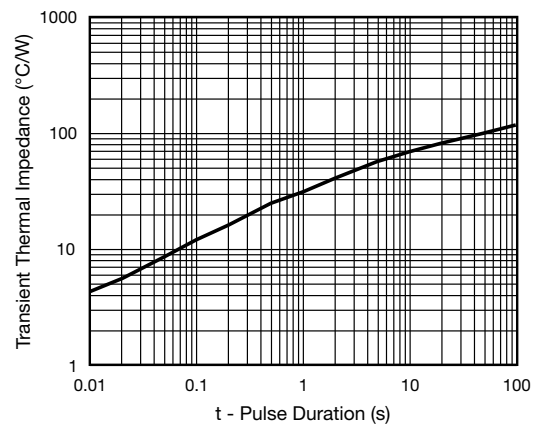
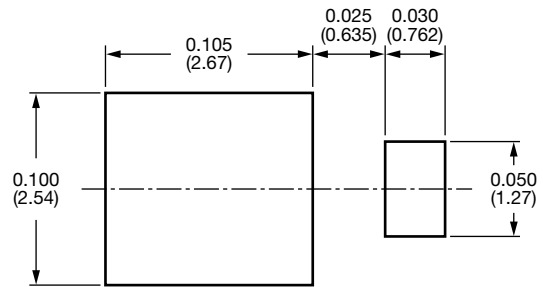
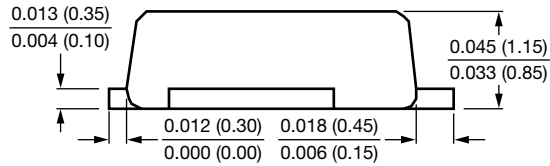
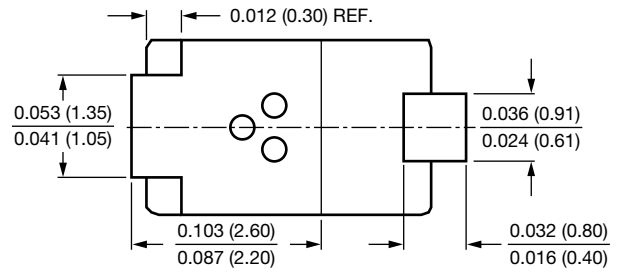
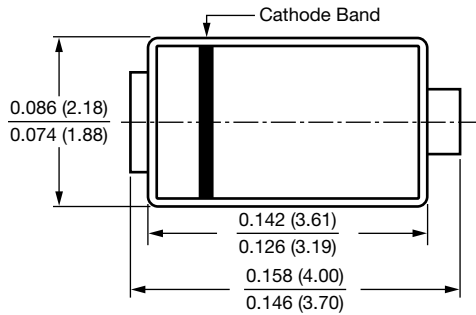


Fig. 6 - Typical Transient Thermal Impedance



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

SMP (DO-220AA)





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