

<b>ELECTRICAL CHARACTERISTICS</b> ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)							
PARAMETER	TEST CONDITIONS	SYMBOL	TYP.	MAX.	UNIT		
Instantaneous forward voltage per diode	$I_F = 1\text{ A}$	$T_A = 25\text{ }^\circ\text{C}$	$V_F^{(1)}$	0.34	-	V	
	$I_F = 3\text{ A}$			0.40	-		
	$I_F = 6\text{ A}$			0.46	0.52		
	$I_F = 1\text{ A}$	$T_A = 100\text{ }^\circ\text{C}$		0.24	-		
	$I_F = 3\text{ A}$			0.31	-		
	$I_F = 6\text{ A}$			0.40	0.45		
Reverse current per diode	Rated $V_R$		$I_R^{(2)}$	$T_A = 25\text{ }^\circ\text{C}$	129	500	$\mu\text{A}$
				$T_A = 100\text{ }^\circ\text{C}$	11.9	25	mA
Typical junction capacitance per diode	4.0 V, 1 MHz	$C_J$	400	-	pF		

**Notes**

- (1) Pulse test: 300  $\mu\text{s}$  pulse width, 1 % duty cycle  
 (2) Pulse test: Pulse width  $\leq 40\text{ ms}$

<b>THERMAL CHARACTERISTICS</b> ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)			
PARAMETER	SYMBOL	SS12P4C	UNIT
Typical thermal resistance	$R_{\theta JA}^{(1)}$	100	$^\circ\text{C/W}$
	$R_{\theta JM}^{(2)}$	3	

**Notes**

- (1) Free air, mounted on recommended copper pad area. Thermal resistance  $R_{\theta JA}$  - junction to ambient  
 (2) Mounted on 30 mm x 30 mm Al PCB with 50 mm x 25 mm x 100 mm fin heat sink. Thermal resistance  $R_{\theta JM}$  - junction to mount

<b>ORDERING INFORMATION</b> (Example)				
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
SS12P4C-M3/86A	0.10	86A	1500	7" diameter plastic tape and reel
SS12P4C-M3/87A	0.10	87A	6500	13" diameter plastic tape and reel
SS12P4CHM3_A/H <sup>(1)</sup>	0.10	H	1500	7" diameter plastic tape and reel
SS12P4CHM3_A/I <sup>(1)</sup>	0.10	I	6500	13" diameter plastic tape and reel

**Note**

- (1) AEC-Q101 qualified

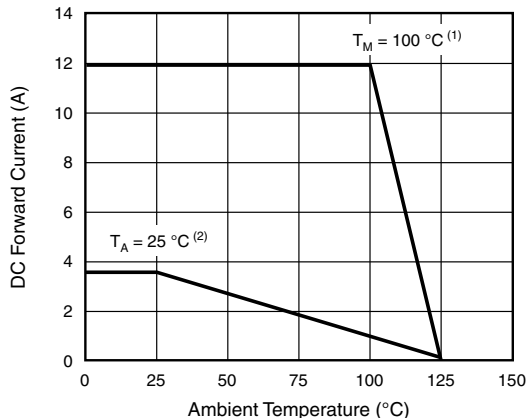
**RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)


Fig. 1 - Maximum Forward Current Derating Curve

**Notes**

- Mounted on 30 mm x 30 mm Al PCB with 50 mm x 25 mm x 100 mm fin heat sink,  $T_M$  measured at the terminal of cathode band ( $R_{\theta JM} = 3\text{ }^\circ\text{C/W}$ )
- Free air, mounted on recommended copper pad area ( $R_{\theta JA} = 100\text{ }^\circ\text{C/W}$ )

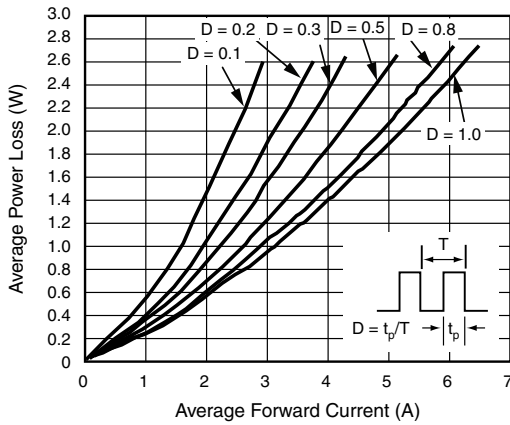


Fig. 2 - Forward Power Loss Characteristics Per Diode

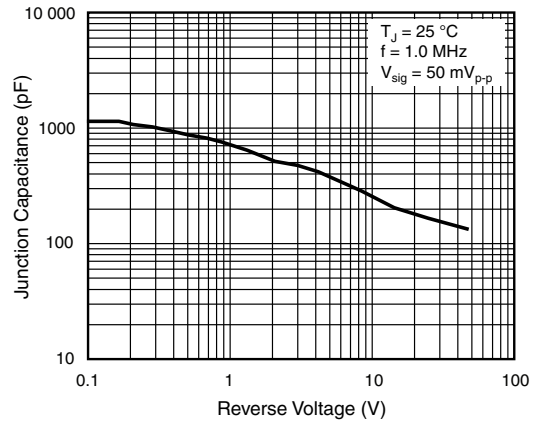


Fig. 5 - Typical Junction Capacitance Per Diode

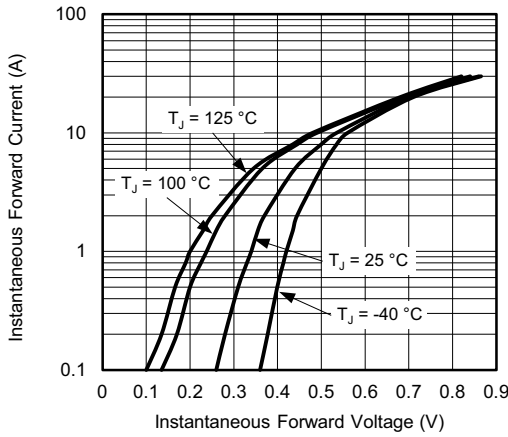


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

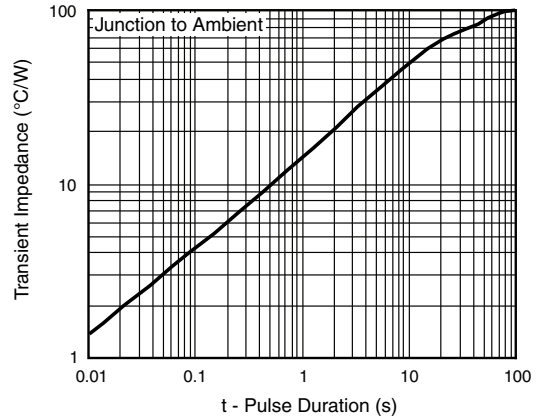


Fig. 6 - Typical Transient Thermal Impedance Per Diode

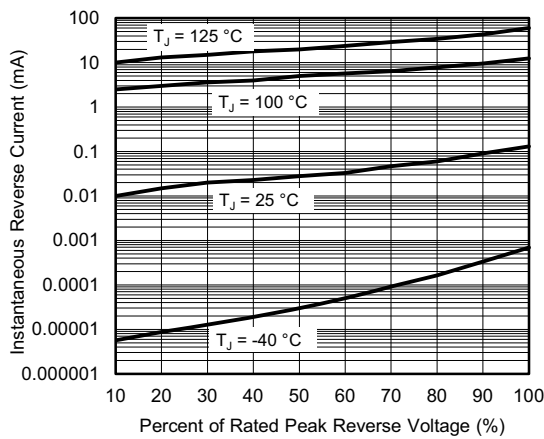
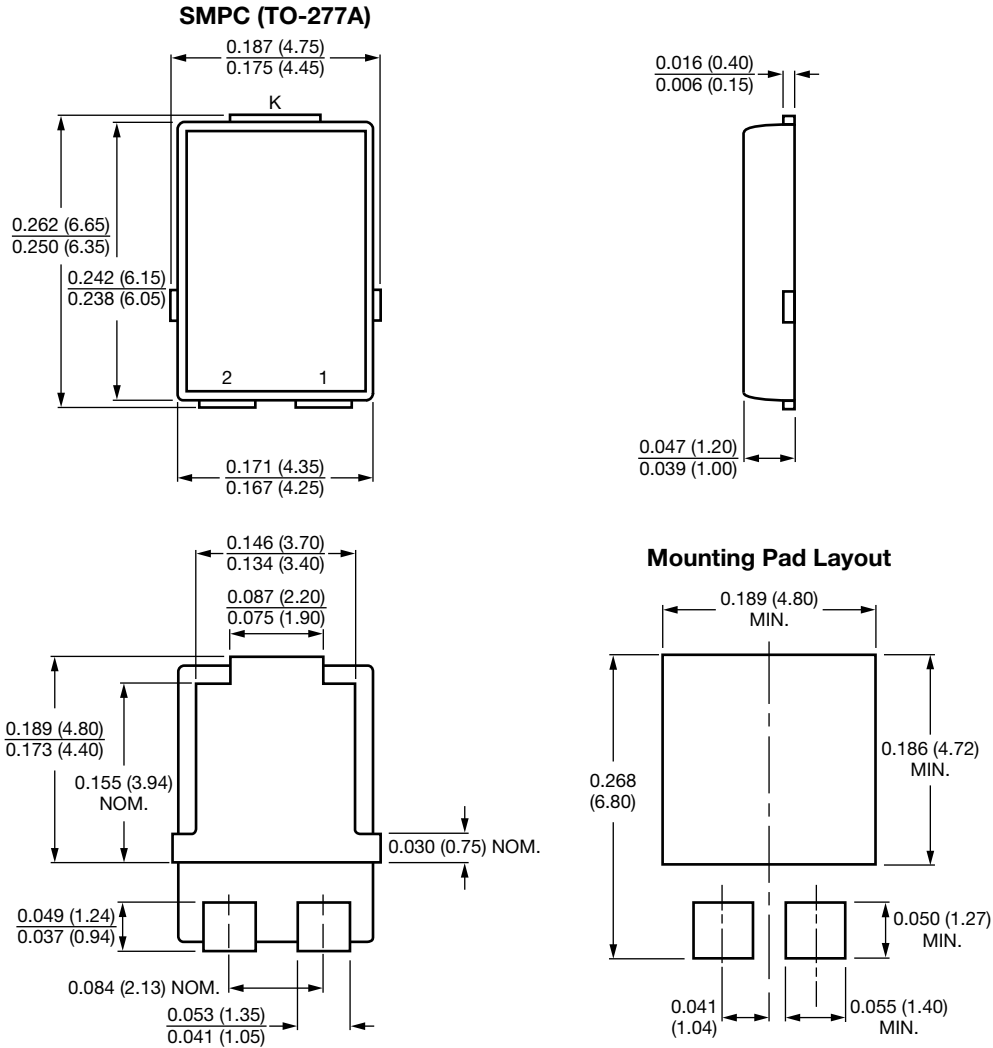


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)



Conform to JEDEC® TO-277A



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