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# Vishay General Semiconductor

<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>A</sub> = 25 °C unless otherwise noted)									
PARAMETER	TEST CONDITIONS		SYMBOL	TYP.	MAX.	UNIT			
Maximum instantaneous forward voltage	I <sub>F</sub> = 6 A	——— T₁ = 25 °C	V <sub>F</sub> <sup>(1)</sup>	0.41	-	V			
	I <sub>F</sub> = 12 A			0.48	0.56				
	I <sub>F</sub> = 6 A	T <sub>A</sub> = 125 °C		0.30	i				
	I <sub>F</sub> = 12 A			0.38	0.46				
Maximum reverse current	Rated V <sub>R</sub>	T <sub>A</sub> = 25 °C	I <sub>R</sub> <sup>(2)</sup>	150	1000	μΑ			
		T <sub>A</sub> = 125 °C		59	120	mA			
Typical junction capacitance	4.0 V, 1 MHz		CJ	930	-	pF			

#### Notes

 $^{(1)}\,$  Pulse test: 300  $\mu s$  pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 40 ms

THERMAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise specified)							
PARAMETER	SYMBOL	SS12P2L	SS12P3L	UNIT			
Typical thermal resistance	R <sub>0</sub> JA (1)	60		°C/W			
Typical thermal resistance	$R_{ hetaJL}$	3					

#### Note

 $^{(1)}$  Units mounted on recommended PCB 1 oz. pad layout

ORDERING INFORMATION (Example)								
PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE				
SS12P3L-M3/86A	0.10	86A	1500	7" diameter plastic tape and reel				
SS12P3L-M3/87A	0.10	87A	6500	13" diameter plastic tape and reel				
SS12P3LHM3_A/H <sup>(1)</sup>	0.10	Н	1500	7" diameter plastic tape and reel				
SS12P3LHM3_A/I (1)	0.10	I	6500	13" diameter plastic tape and reel				

#### Note

(1) AEC-Q101 qualified



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### RATINGS AND CHARACTERISTICS CURVES (T<sub>A</sub> = 25 °C unless otherwise noted)

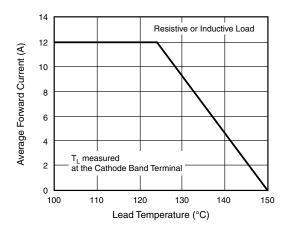


Fig. 1 - Maximum Forward Current Derating Curve

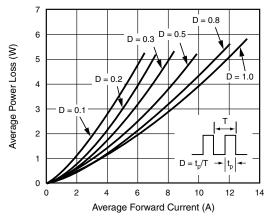


Fig. 2 - Forward Power Loss Characteristics

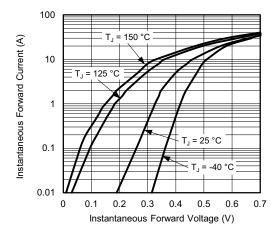


Fig. 3 - Typical Instantaneous Forward Characteristics

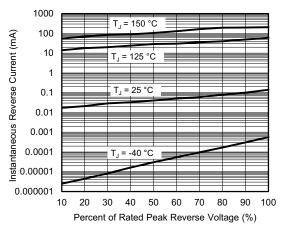


Fig. 4 - Typical Reverse Leakage Characteristics

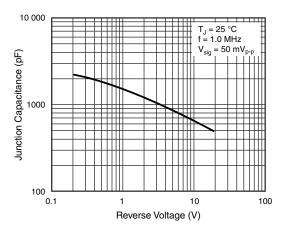


Fig. 5 - Typical Junction Capacitance

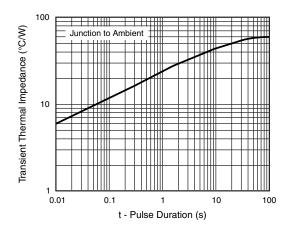
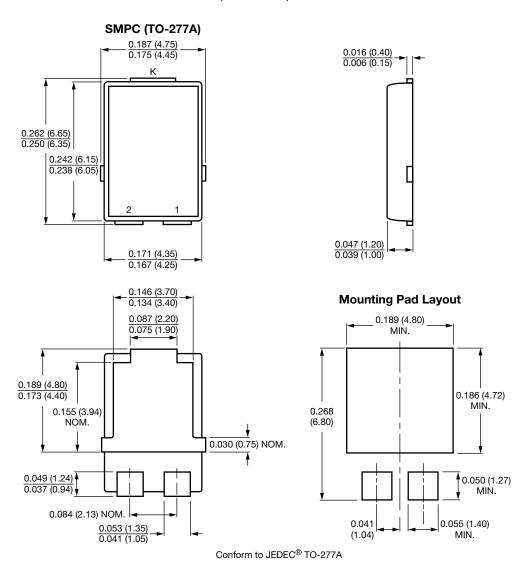


Fig. 6 - Typical Transient Thermal Impedance



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#### **PACKAGE OUTLINE DIMENSIONS** in inches (millimeters)





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