

# Vishay General Semiconductor

<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>A</sub> = 25 °C unless otherwise noted)							
PARAMETER	TEST CONDITIONS		SYMBOL	TYP.	MAX.	UNIT	
Instantaneous forward voltage per diode	I <sub>F</sub> = 3 A	T <sub>A</sub> = 25 °C	V <sub>F</sub> <sup>(1)</sup>	0.56	-	V	
	I <sub>F</sub> = 6 A			0.65	0.75		
	I <sub>F</sub> = 3 A	T <sub>A</sub> = 125 °C		0.48	-		
	I <sub>F</sub> = 6 A	1A = 125 C		0.48 0.57	0.66		
Reverse current per diode	V <sub>R</sub> = 100 V	T <sub>A</sub> = 25 °C	I <sub>R</sub> <sup>(2)</sup>	-	300	μA	
		T <sub>A</sub> = 125 °C		3	15	mA	

#### **Notes**

(1) Pulse test: 300 µs pulse width, 1 % duty cycle

(2) Pulse test: Pulse width ≤ 5 ms

THERMAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted)					
PARAMETER		SYMBOL	V12WM100C	UNIT	
Typical thermal resistance	per diode	$R_{ heta JC}$	2.4		
	per device		1.2	°C/W	
	per device	R <sub>θJA</sub> <sup>(1) (2)</sup>	65		

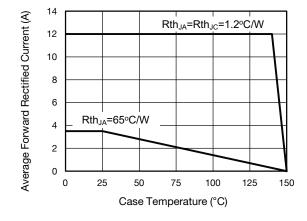
#### Notes

(1) The heat generated must be less than the thermal conductivity from junction-to-ambient:  $dP_D/dT_J < 1/R_{\theta,JA}$ 

(2) Free air, without heatsink

ORDERING INFORMATION (Example)					
PREFERRED P/N	UNIT WEIGHT (g)	PACKAGE CODE	BASE QUANTITY	DELIVERY MODE	
V12WM100C-M3/I	0.38	I	2500/reel	13" diameter plastic tape and reel	

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





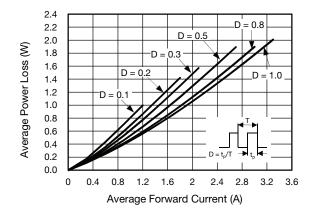


Fig. 2 - Forward Power Loss Characteristics Per Diode



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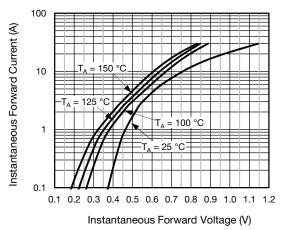
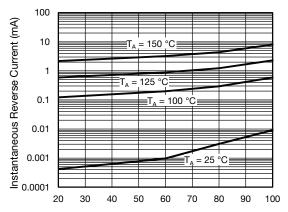


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode



Percent of Rated Peak Reverse Voltage (%)
Fig. 4 - Typical Reverse Characteristics Per Diode

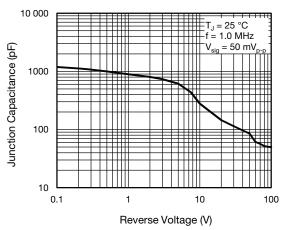


Fig. 5 - Typical Junction Capacitance Per Diode

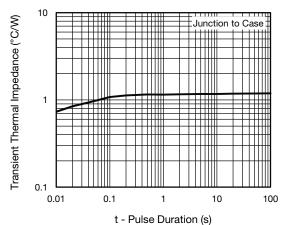
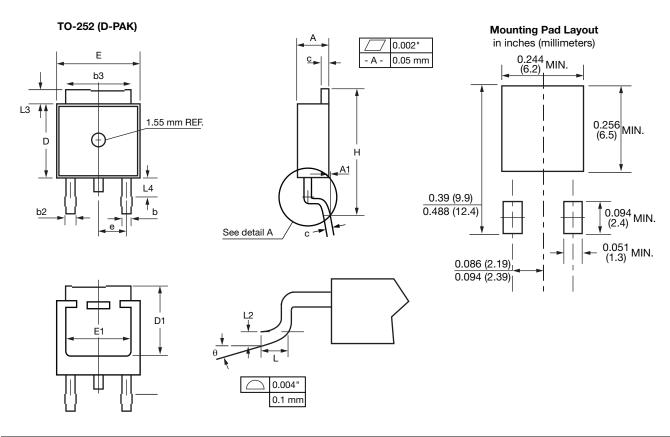


Fig. 6 - Typical Transient Thermal Impedance Per Device



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



SYMBOL	INC	CHES	MILLIMETERS			
	MIN.	MAX.	MIN.	MAX.		
Α	0.086	0.094	2.19	2.38		
A1	-	0.005	-	0.13		
b	0.025	0.035	0.64	0.89		
b2	0.033	0.045	0.84	1.14		
b3	0.205	0.215	5.21	5.46		
С	0.018	0.024	0.46	0.61		
D	0.235	0.250	5.97	6.22		
D1	0.205	-	5.21	-		
Е	0.250	0.265	6.35	6.73		
E1	0.190	-	4.83	-		
е	0.09	0 BSC.	2.29 BSC.			
Н	0.380	0.410	9.65	10.41		
L	0.055	0.070	1.40	1.78		
L2	0.02	0.020 BSC.		0.51 BSC.		
L3	0.035	0.050	0.89	1.27		
L4	0.025	0.039	0.64	1.01		
θ	0°	8°	0°	8°		

#### Note

<sup>•</sup> Conforms to JEDEC TO-252 variation AA except dimension "D"

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