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Vishay General Semiconductor

ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)								
PARAMETER	TEST CONDITIONS		SYMBOL	TYP.	MAX.	UNIT		
Instantaneous forward voltage per diode	I _F = 5 A	T _A = 25 °C	- V _F ⁽¹⁾	0.65	-	V		
	I _F = 10 A			0.82	0.91			
	I _F = 5 A	T _A = 125 °C		0.55	-			
	I _F = 10 A			0.64	0.72			
Reverse current per diode	V _R = 90 V	T _A = 25 °C	I _R ⁽²⁾	3	-	μΑ		
		T _A = 125 °C		1.5	-	mA		
	V _R = 120 V	T _A = 25 °C		-	700	μΑ		
		T _A = 125 °C		4	25	mA		

Notes

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

(2) Pulse test: Pulse width ≤ 5 ms

THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)							
PARAMETER		SYMBOL	V20M120C	VI20M120C	UNIT		
	per diode	В	2.8		°C/W		
Typical thermal resistance (1)	per device	$R_{ heta JC}$	1.6				
	per device	R _{0JA} (2)	45	55			

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)								
PACKAGE	PREFERRED P/N	EFERRED P/N UNIT WEIGHT (g)		BASE QUANTITY	DELIVERY MODE			
TO-220AB	V20M120C-M3/4W	1.88	4W	50/tube	Tube			
TO-262AA	VI20M120C-M3/4W	1.45	4W	50/tube	Tube			

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RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)

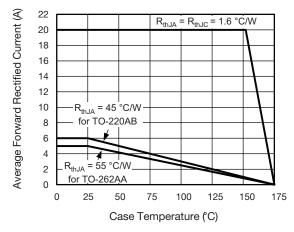


Fig. 1 - Maximum Forward Current Derating Curve

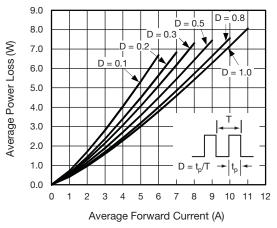


Fig. 2 - Forward Power Loss Characteristics Per Diode

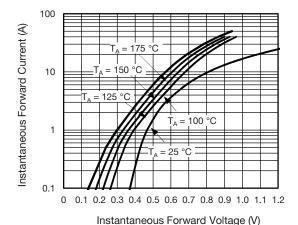


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

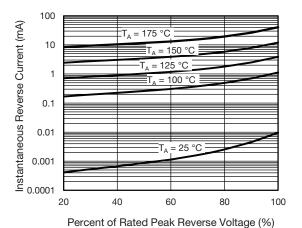


Fig. 4 - Typical Reverse Characteristics Per Diode

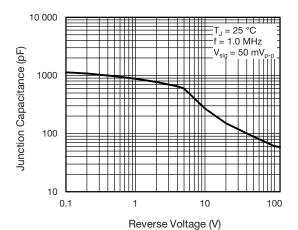


Fig. 5 - Typical Junction Capacitance Per Diode

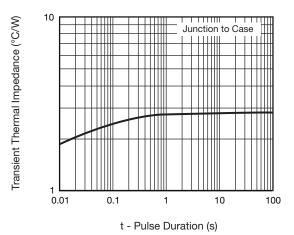


Fig. 6 - Typical Transient Thermal Impedance Per Diode

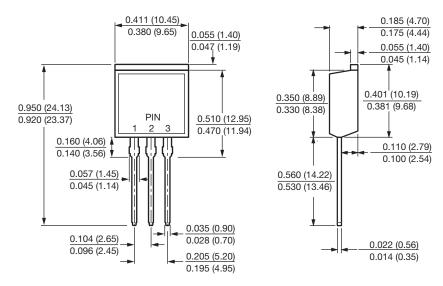


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PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

TO-220AB 0.415 (10.54) 0.380 (9.65) 0.185 (4.70) 0.161 (4.08) 0.175 (4.44) 0.139 (3.53) 0.055 (1.39) 0.113 (2.87) 0.045 (1.14) 0.103 (2.62) 0.603 (15.32) 0.635 (16.13) 0.573 (14.55) 0.625 (15.87) PIN 0.350 (8.89) 2 0.330 (8.38) 0.160 (4.06) 1.148 (29.16) 0.140 (3.56) 1.118 (28.40) 0.110 (2.79) 0.100 (2.54) 0.057 (1.45) 0.045 (1.14) 0.560 (14.22) 0.530 (13.46) 0.035 (0.90) 0.028 (0.70) 0.104 (2.65) 0.022 (0.56) 0.096 (2.45) 0.205 (5.20) 0.014 (0.36) 0.195 (4.95)

TO-262AA





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