

3 Amp HV Schottky Rectifiers

50 Volt, 60 Volt, 80 Volt & 100 Volt V_{RRM}

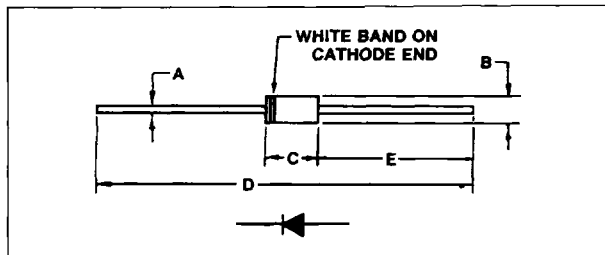
0.70 Volts V_F at $I_F = 3$ Amps

Low Leakage at High Temperature

Very Fast Switching Speeds

Economical DO-201 Plastic Package

LTR.	INCHES	MILLIMETERS
A	.048-.052 Dia.	1.22-1.32 Dia.
B	.190-.225	4.83-5.72
C	.36-.37	9.14-9.00
D	2.6-2.8	66.0-71.1
E	1.137-1.237	28.33-31.42



MAXIMUM RATINGS (At $T_L = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	VSK 3100	VSK 380	VSK 360	VSK 350	UNITS
DC Blocking Voltage	V_{RRM}	100	80	60	50	Volts
Working Peak Reverse Voltage	V_{RWM}					
Peak Repetitive Reverse Voltage	V_{RRM}					
RMS Reverse Voltage	$V_{R(RMS)}$	71	56	42	35	Volts
Average Rectified Forward Current $T_L = 125^\circ\text{C}$ (1) (See Figure 3)	I_o	3.0				Amps
Peak Surge Current (non-rep) $\frac{1}{2}$ cycle, 60 Hz	I_{FSM}	150				Amps
Operating and Storage Junction Temperature Range	T_J, T_{STG}	- 65 to + 150				$^\circ\text{C}$

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

CHARACTERISTICS	SYMBOL	VSK 3100	VSK 380	VSK 360	VSK 350	UNITS
Maximum Instantaneous Forward Voltage (See Fig. 1 for typ. V_F) $I_F = 1.0$ Amps $I_F = 3.0$ Amps $I_F = 10.0$ Amps	V_F	$T_J = 25^\circ\text{C}$		$T_J = 100^\circ\text{C}$		Volts
		0.56	0.48	0.48	0.48	
		0.70	0.60	0.60	0.60	
		0.81	0.70	0.70	0.70	
Maximum Instantaneous Reverse Current at $V_R = 10\text{V}$ (See Figure 2) $T_C = 25^\circ\text{C}$ $T_C = 100^\circ\text{C}$ $T_C = 150^\circ\text{C}$	I_R			2.0 5.0 15.0		mA
Typical Junction Capacitance $V_R = 10\text{V}$ (See Figure 4)	C_J			170		pF

(1) T_L measured $\frac{1}{32}$ inch from epoxy body.

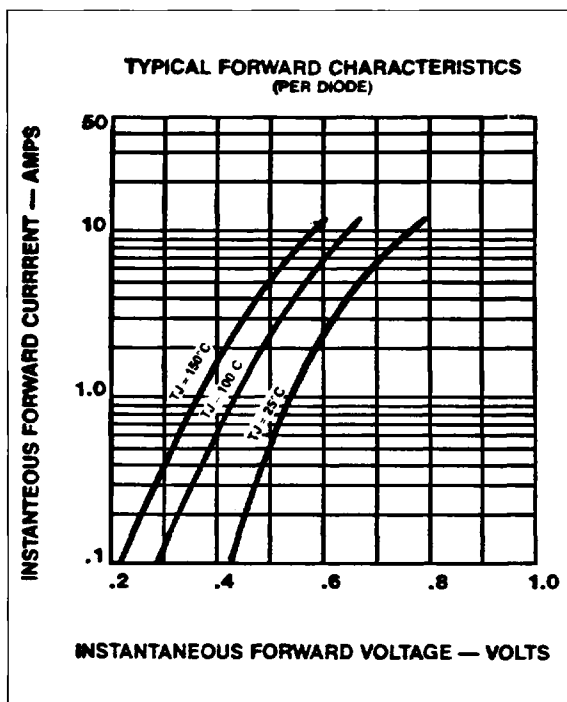


FIGURE 1

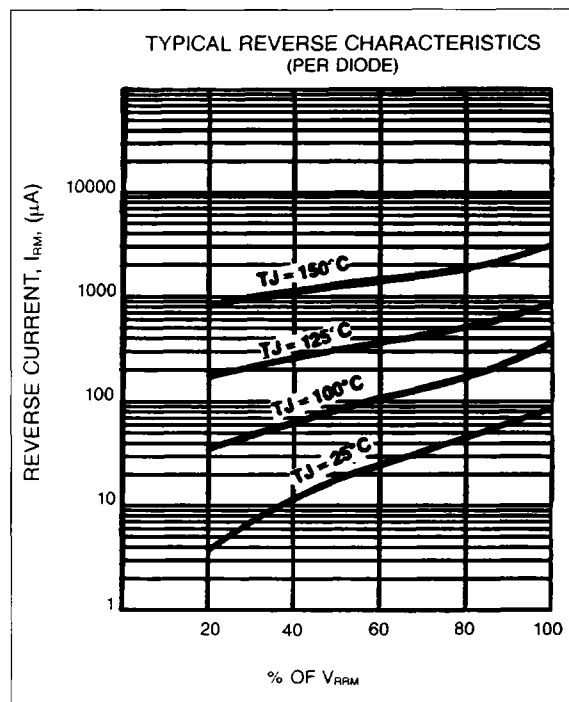


FIGURE 2

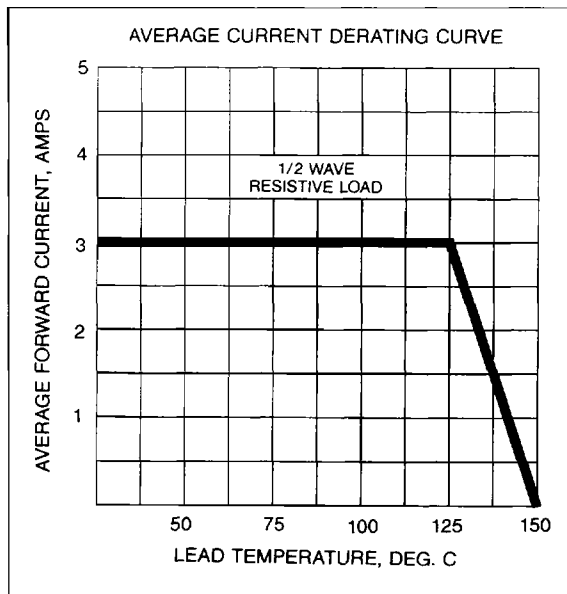


FIGURE 3

THERMAL CONSIDERATIONS

1. The derating curve of Figure 3 may be used for initial design work.
2. These thermal resistances apply: $R_{\theta JA}$ (measured $1/2$ " from epoxy) = $6^{\circ}\text{C}/\text{W}$ and the lead = $25^{\circ}\text{C}/\text{W}$ per inch when equal heatsinking is applied to each lead.
3. Allow additional margin in derating curve for reverse power dissipation due to leakage at high temperature. See Application Note, "How to Specify, Test and Use Schottky Rectifiers for Optimum Performance."

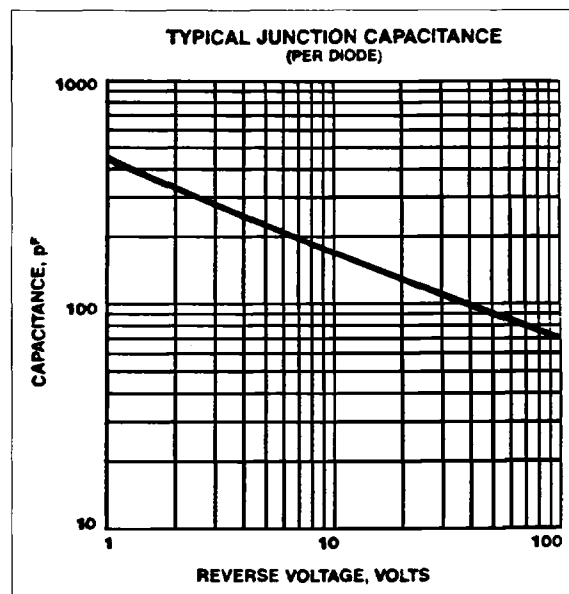


FIGURE 4