

MICRO
QUALITY
SEMICONDUCTOR, INC

T-23-05

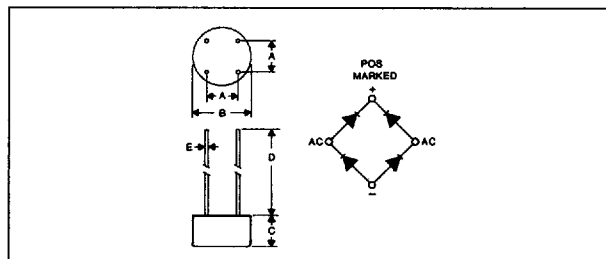
EBR 1 Amp Epoxy Bridge Rectifiers VE Series

Controlled Avalanche Series with 250V, 450V,
650V, and 850V Minimum Avalanche Ratings

Non-controlled Avalanche Series with 50V, 100V,
200V, 400V, 600V, 800V, and 1000V V_{RRM} Ratings

Glass Passivated Silicon Chips

LTR.	INCHES	MILLIMETERS
A	.185-.215	4,70-5,46
B	.350-.365	8,89-9,27
C	.190-.215	4,83-5,46
D	1.0 MIN.	25,4 MIN.
E	.022-.028 DIA.	,558-.711 DIA.



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

RATINGS	SYMBOL	CONTROLLED AVALANCHE				NON-CONTROLLED AVALANCHE						UNITS		
		VE27	VE47	VE67	VE87	VE08	VE18	VE28	VE48	VE68	VE88		VE108	
Series Number														
DC Blocking Voltage Working Peak Reverse Voltage Peak Repetitive Reverse Voltage	V_{RM} V_{RWM} V_{RRM}	200	400	600	800	50	100	200	400	600	800	1000	Volts	
RMS Reverse Voltage	$V_{R(RMS)}$	140	280	420	560	35	70	140	280	420	560	700	Volts	
Power Dissipation in $V_{(BR)}$ Region for 100 μSEC Square Wave	P_{RM}	200				NA						Watts		
Continuous Power Dissipation in $V_{(BR)}$ Region at $T_A = 65^\circ\text{C}$	P_R	1				NA						Watts		
Peak Surge Current, $\frac{1}{2}$ Cycle at 60 Hz, (Non-Rep) at $T_A = 65^\circ\text{C}$ (Fig. 2)	I_{FSM}							25						Amps
Peak Surge Current, 1 sec at 60 Hz and $T_A = 85^\circ\text{C}$ (Fig. 2)	I_{FRM}							4						Amps
Avg. Forward Current at $T_A = 65^\circ\text{C}$ (Fig. 1)	I_O							1						Amps
Junction Operating and Storage Temperature Range	T_J, T_{STG}							- 50 to + 150						$^\circ\text{C}$
Max Soldering Temperature & Time								10 Sec at 265°C						

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

CHARACTERISTICS	SYMBOL	CONTROLLED AVALANCHE				NON-CONTROLLED AVALANCHE						UNITS		
		VE27	VE47	VE67	VE87	VE08	VE18	VE28	VE48	VE68	VE88		VE108	
Series Number														
Minimum Avalanche Voltage	$V_{(BR)}$	250	450	650	850	NA						Volts		
Maximum Avalanche Voltage	$V_{(BR)}$	700	900	1100	1300	NA						Volts		
Maximum Instantaneous Forward Voltage Drop (Per Diode) at 1 Amp (Fig. 3)	V_{FM}							1.2						Volt
Maximum Reverse Current at Rated V_{RM}	I_{RM}							5						μA
Maximum Reverse Current at Rated V_{RM} at $T_J = 125^\circ\text{C}$ (Fig. 4)	I_{RM}							500						μA
Insulation strength from Circuit to case (Min.)								2000						Vdc
Thermal Resistance (Typ) Junction to Ambient	$R_{\theta JA}$							45						$^\circ\text{C}/\text{W}$

VE Series Bridges have been recognized under the component program of Underwriters Laboratories, Inc.

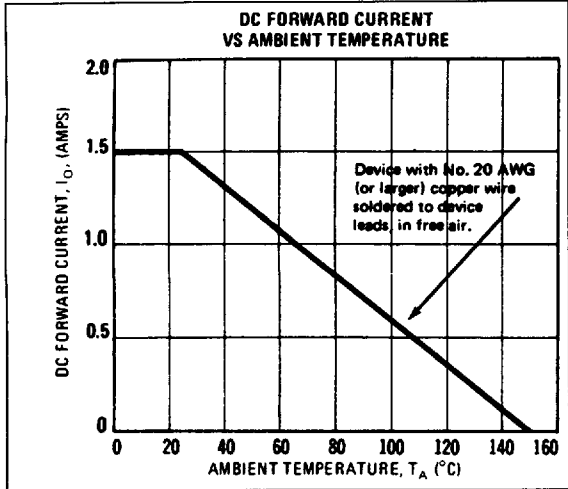


FIGURE 1

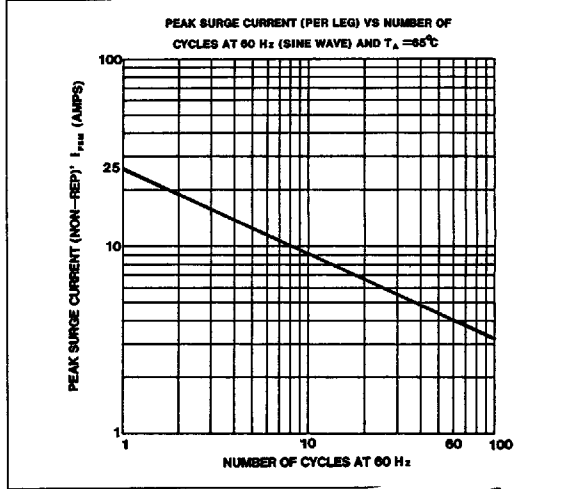


FIGURE 2

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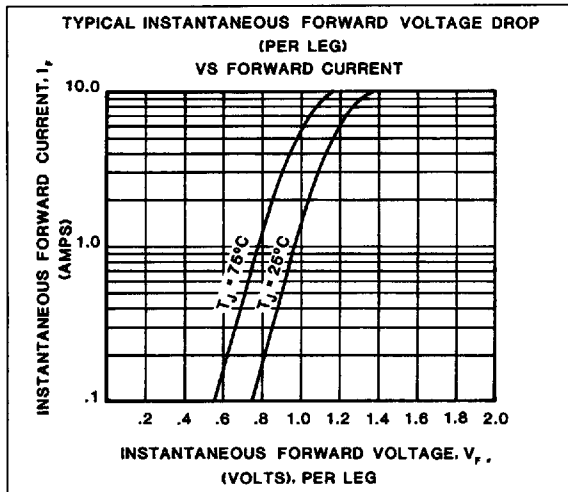


FIGURE 3

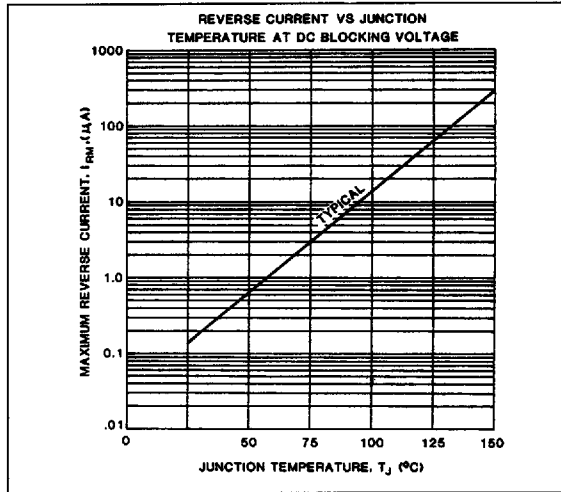


FIGURE 4

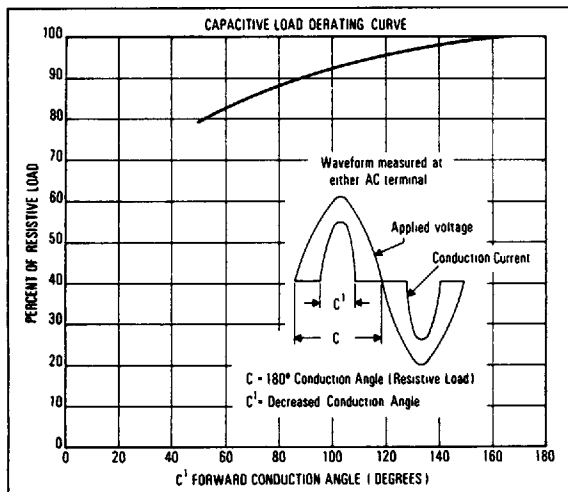


FIGURE 5