



T-23-05

EBR 2 Amp Epoxy Bridge Rectifiers VS Series

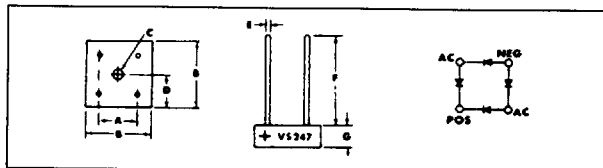
Glass Passivated Silicon Chips

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

50 Amps Peak One Half Cycle Surge Current

LTR.	INCHES	MILLIMETERS
A	.411-.441	10.44-11.20
B	.590-.610	14.99-15.49
C	.137-.167 Dia.	3.48-4.24 Dia.
D	.295-.305	7.49-7.75
E	.037-.043 Dia.	.94-1.09 Dia.
F	1.0 Min.	25.4 Min.
G	.195-.205	4.95-5.21



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

RATINGS	SYMBOL	CONTROLLED AVALANCHE				NON-CONTROLLED AVALANCHE							UNITS
		VS247	VS447	VS647	VS847	VS048	VS148	VS248	VS448	VS648	VS848	VS1048	
Series Number		VS247	VS447	VS647	VS847	VS048	VS148	VS248	VS448	VS648	VS848	VS1048	
DC Blocking Voltage	V_{RM}												
Working Peak Reverse Voltage	V_{RWM}	200	400	600	800	50	100	200	400	600	800	1000	Volts
Peak Repetitive Reverse Voltage	V_{RRM}												
RMS Reverse Voltage	V_{RRMS}	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}	300				NA							Watts
Continuous Power Dissipation in $V_{(BR)}$ Region at $T_A = 60^\circ\text{C}$	P_R	1				NA							Watts
Peak Surge Current, $\frac{1}{2}$ Cycle at 60 Hz, (Non-Rep) at $T_A = 60^\circ\text{C}$ (Fig. 2)	I_{FSM}	50											Amps
Peak Surge Current, 1 sec at 60 Hz and $T_A = 60^\circ\text{C}$ (Fig. 2)	I_{FRM}	8											Amps
Avg. Forward Current at $T_A = 60^\circ\text{C}$ (Fig. 1)	I_o	2											Amps
Junction Operating and Storage Temperature Range	T_J, T_{STG}	- 50 to + 150											$^\circ\text{C}$
Maximum Soldering Temperature & Time		10 Sec at 265°C											
Fusing Data	I^2t	10											Amps ² -Sec.

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

CHARACTERISTICS	SYMBOL	CONTROLLED AVALANCHE				NON-CONTROLLED AVALANCHE							UNITS
		VS247	VS447	VS647	VS847	VS048	VS148	VS248	VS448	VS648	VS848	VS1048	
Series Number		VS247	VS447	VS647	VS847	VS048	VS148	VS248	VS448	VS648	VS848	VS1048	
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 2 Amp (Fig. 3)	V_{FM}							1.2					Volts/Leg
Maximum Reverse Current at Rated V_{RM}	I_{RM}							5					μA
Maximum Reverse Current at Rated V_{RM} at $T_A = 125^\circ\text{C}$	I_{RM}							500					μA
Insulation Strength From Circuit to Case (min.)								2000					Volts DC
Thermal Resistance (Typ.)													
Junction To Case (On Heat Sink)	$R_{\theta JC}$							6					$^\circ\text{C/W}$
Junction To Air (No Heat Sink)	$R_{\theta JA}$							25					$^\circ\text{C/W}$

Part Nos. VS247, VS447, VS647, VS847, VS048, VS148, VS248, VS448, VS648, and VS848 have been recognized under the Component Program of Underwriters Laboratories, Inc.

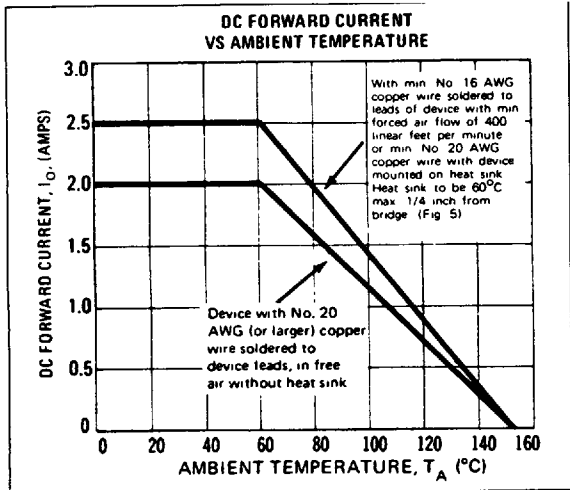


FIGURE 1

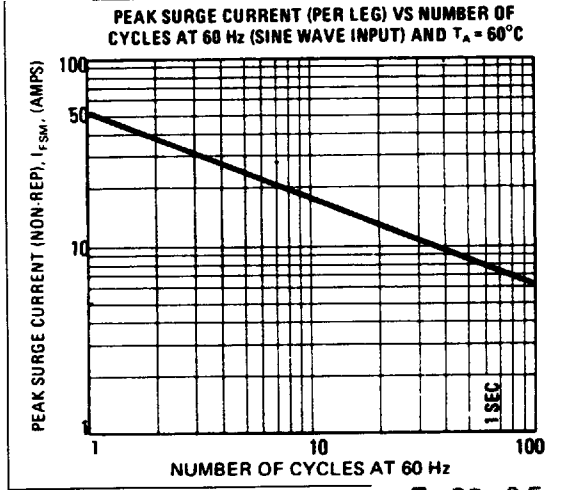


FIGURE 2

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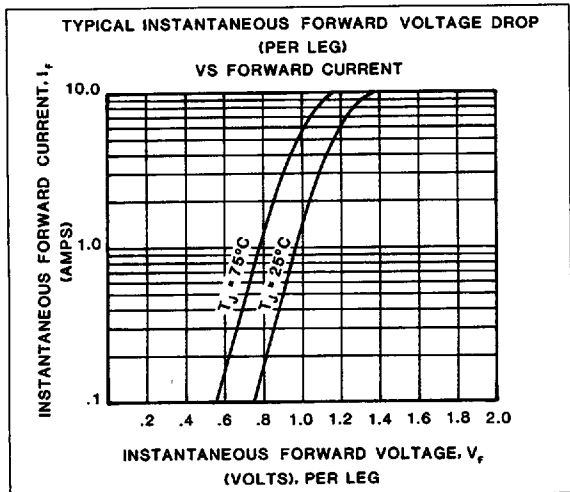


FIGURE 3

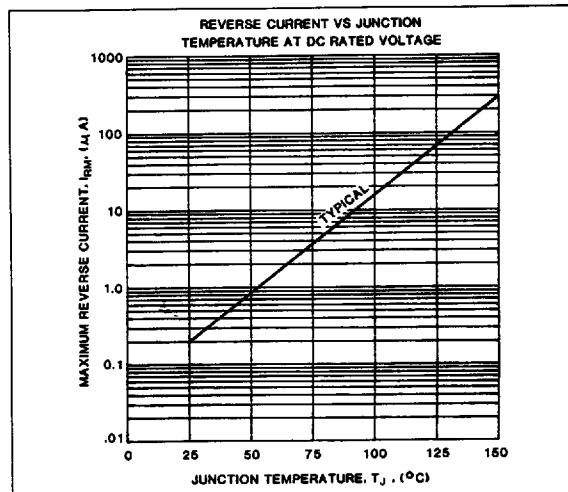


FIGURE 4

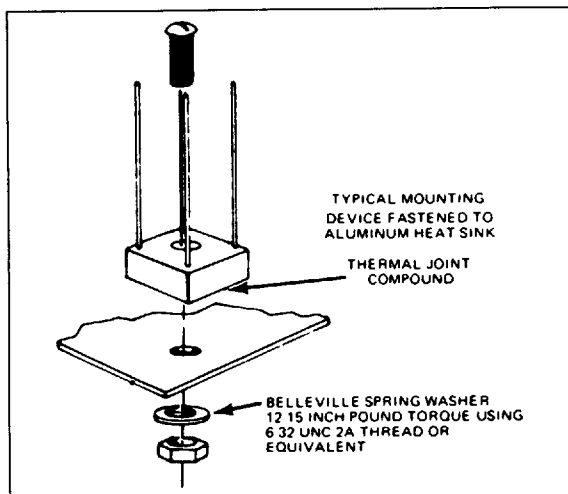


FIGURE 5

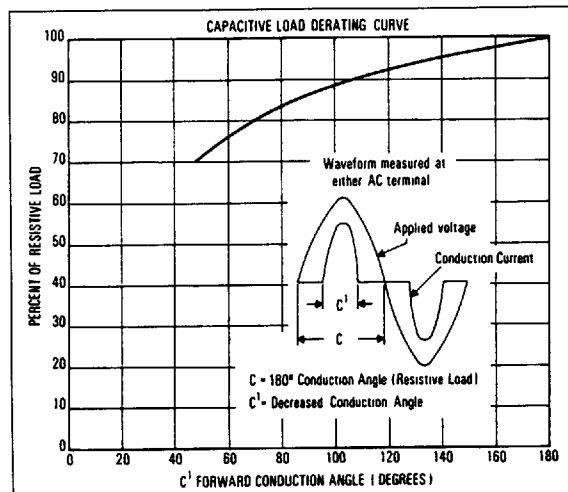


FIGURE 6