

# EBR 6 Amp Epoxy Bridge Rectifiers VH Series

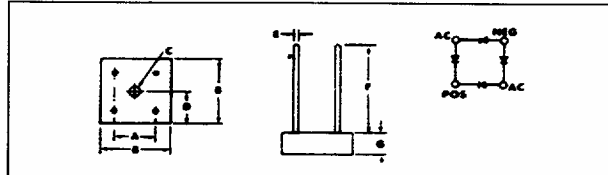
Glass Passivated Silicon Chips

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

100 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 specified)

RATINGS	SYMBOL	CONTROLLED AVALANCHE				NON-CONTROLLED AVALANCHE						UNITS	
Series Number		VH247	VH447	VH647	VH847	VH048	VH148	VH248	VH448	VH648	VH848	VH1048	
DC Blocking Voltage	$V_{RM}$	200	400	600	800	50	100	200	400	600	800	1000	Volts
Working Peak Reverse Voltage	$V_{RWM}$												
Peak Repetitive Reverse Voltage	$V_{RRM}$												
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 $\mu$ SEC Square Wave	$P_{RM}$	400				NA						Watts	
Continuous Power Dissipation in $V_{(BR)}$ Region at $T_{HS} = 80^{\circ}\text{C}$	$P_R$	2				NA						Watts	
Fusing Data	$I^2t$					40						Amps <sup>2</sup> Sec.	
Peak Surge Current, 1/2 Cycle at 60 Hz (Non-Rep) at $T_{HS} = 80^{\circ}\text{C}$ (Fig. 2)	$I_{FSM}$					100						Amps	
Peak Surge Current, 1 sec. at 60 Hz and $T_{HS} = 80^{\circ}\text{C}$ (Fig. 2)	$I_{FRM}$					25						Amps	
Avg. Forward Current at $T_{HS} = 80^{\circ}\text{C}$ (Fig. 1)	$I_O$					6						Amps	
Junction Operating and Storage Temperature Range	$T_J, T_{STG}$					- 50 to + 150						$^{\circ}\text{C}$	
Maximum soldering temperature and time						10 Sec at 265 $^{\circ}\text{C}$							

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

RATINGS	SYMBOL	CONTROLLED AVALANCHE				NON-CONTROLLED AVALANCHE						UNITS	
Series Number		VH247	VH447	VH647	VH847	VH048	VH148	VH248	VH448	VH648	VH848	VH1048	
Minimum Avalanche Voltage	V <sub>BR</sub>	250	450	650	850	NA						Volts	
Maximum Avalanche Voltage	V <sub>BR</sub>	700	900	1100	1300	NA						Volts	
Maximum Instantaneous Forward Voltage Drop (Per Diode) at 6 Amps (Fig. 3)	V <sub>FM</sub>	1.3										Volts/ Leg	
Maximum Reverse Current at Rated V <sub>RM</sub>	I <sub>RM</sub>	5										μA	
Maximum Reverse Current at Rated V <sub>RM</sub> at T <sub>J</sub> = 125°C	I <sub>RM</sub>	1.0										mA	
Insulation Strength From Circuit to Case (min.)		2000										Volts DC	
Thermal Resistance (Typ.) Junction to case (on heat sink) Junction to air (no heat sink)	R <sub>Jc</sub> R <sub>JA</sub>	6 25										°C/W °C/W	

Part Nos. VH247, VH447, VH647, VH847, VH048, VH148, VH248, VH448, VH648, and VH848 have been recognized under the Component Program of Underwriters Laboratories, Inc.

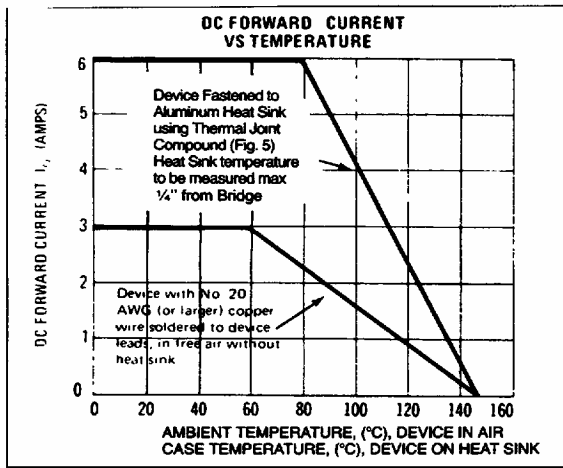


FIGURE 1

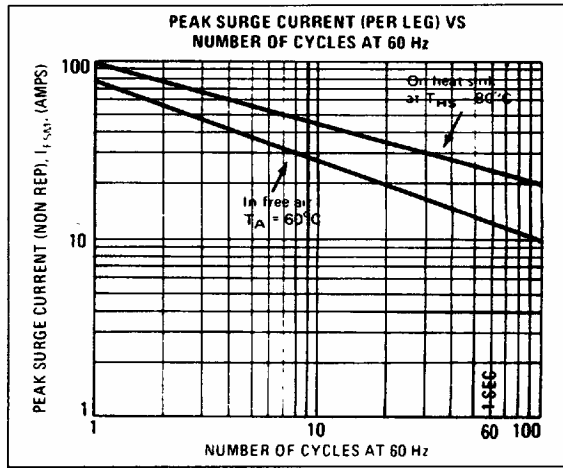


FIGURE 2

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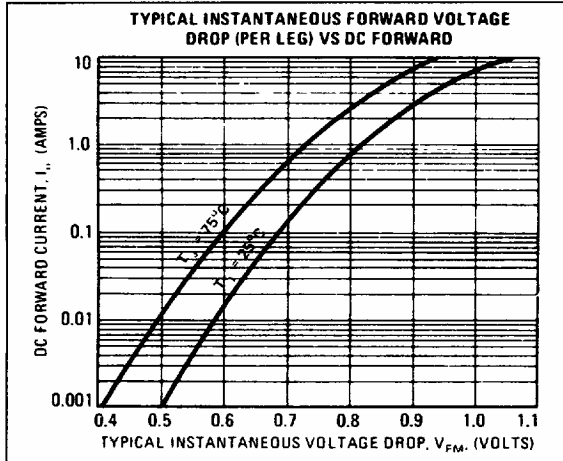


FIGURE 3

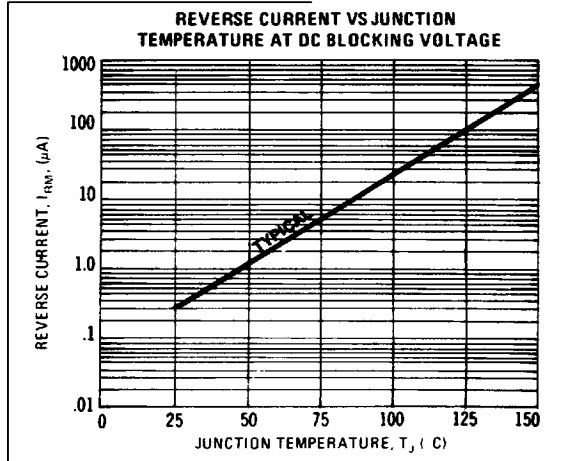


FIGURE 4

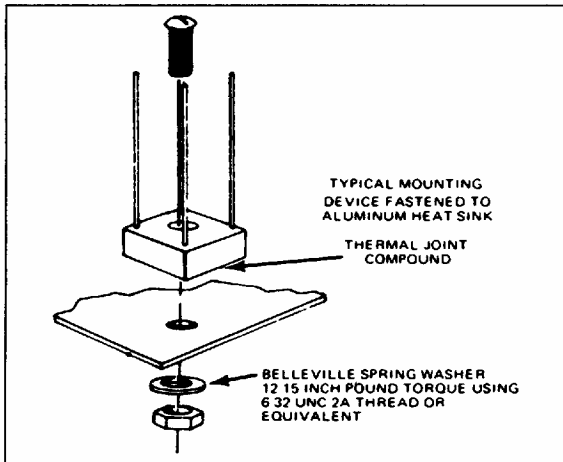


FIGURE 5

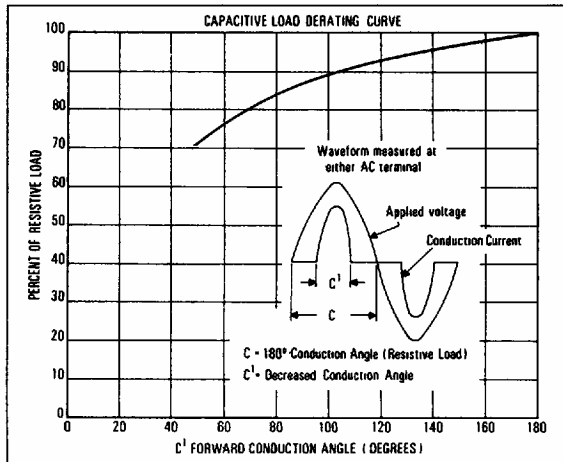


FIGURE 6