MICRO QUALITY SEMICONDUCTOR, INC.

EBR 6 Amp Epoxy Bridge Rectifiers VH Series

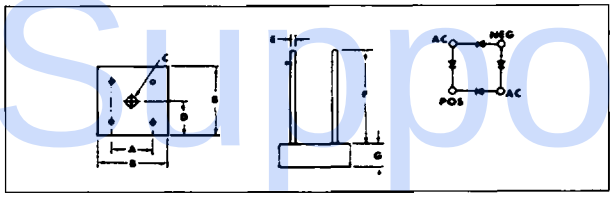
Glass Passivated Silicon Chips

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°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 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}	400				NA							Watts
Continuous Power Dissipation in $V_{(BR)}$ Region at T_{HS} = 80°C	P_R	2				NA							Watts
Fusing Data	I^2t	40											Amps² Sec.
Peak Surge Current, ½ Cycle at 60 Hz, (Non-Rep) at ThS = 80°C (Fig. 2)	I_{FSM}	100											Amps
Peak Surge Current, 1 sec. at 60 Hz and T_{HS} = 80°C (Fig. 2)	I_{FRM}	25											Amps
Avg. Forward Current at T_{HS} = 80°C (Fig. 1)	I_O	6											Amps
Junction Operating and Storage Temperature Range	T_J, T_{STG}	– 50 to + 150											°C
Maximum soldering temperature and time		10 Sec at 265°C											

ELECTRICAL CHARACTERISTICS (At T_A = 25°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	$V_{(BR)}$	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 6 Amps (Fig. 3)	V_{FM}	1.3											Volts/ Leg
Maximum Reverse Current at Rated V_{RM}	I_{RM}	5											µA
Maximum Reverse Current at Rated V_{RM} at T_J = 125°C	I_{RM}	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)	 $R_{\theta JC}$ $R_{\theta JA}$	 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.

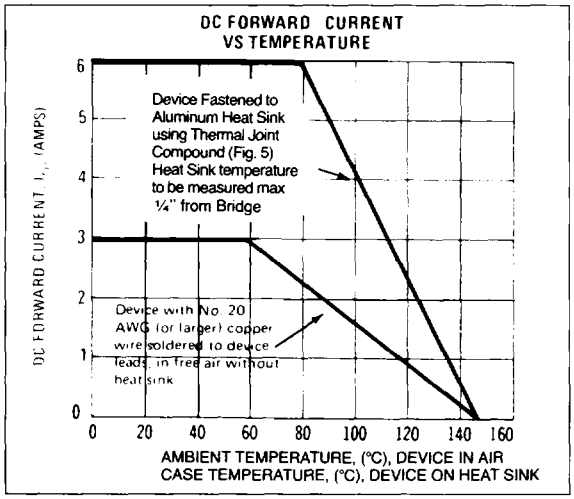


FIGURE 1

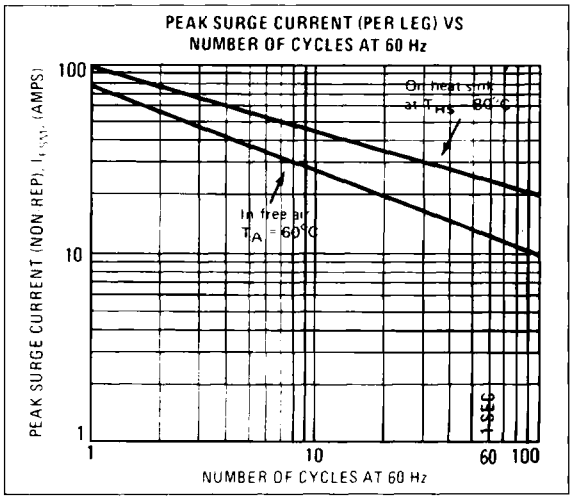


FIGURE 2

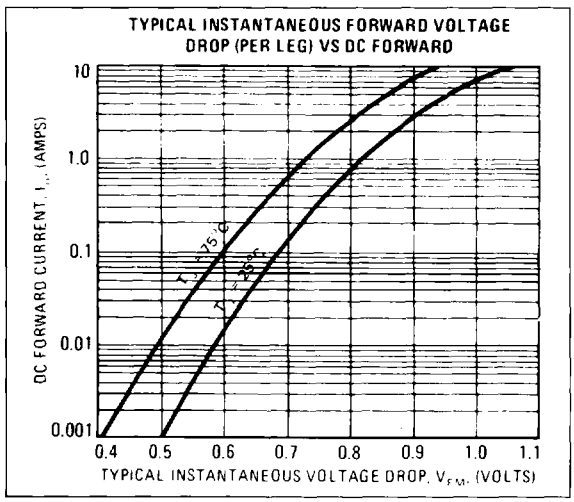


FIGURE 3

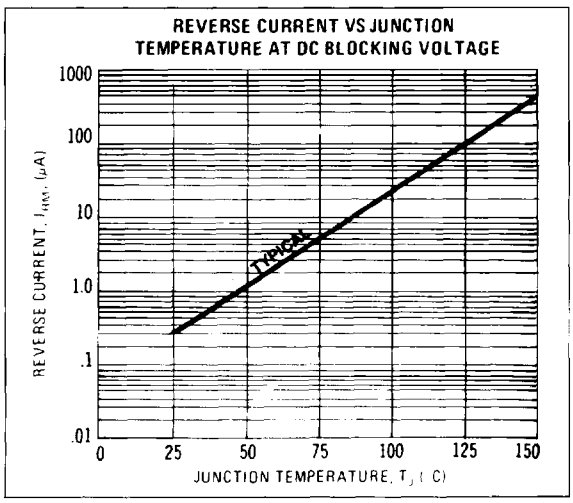


FIGURE 4

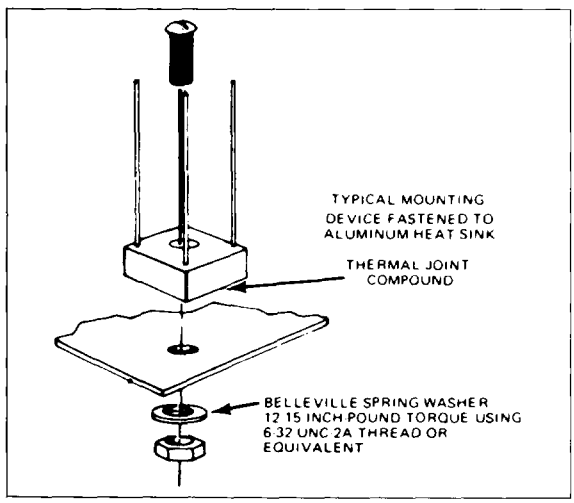


FIGURE 5

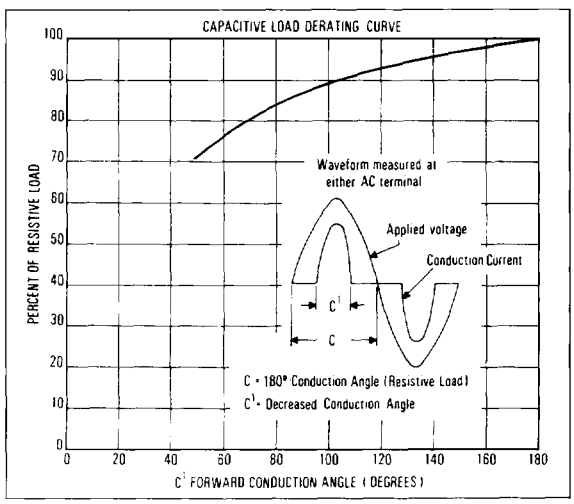


FIGURE 6