

MICRO
QUALITY
SEMICONDUCTOR, INC

T-23-07

EBR 5 Amp Fast Recovery Time Epoxy Bridge Rectifiers

200 Nanosecond Recovery Time

50, 100, 200, 400, 600, 800, and 1000V V_{RRM} Rating

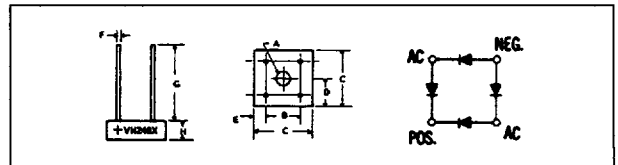
5 Amps DC Forward Current At $T_{HS} = 60^{\circ}\text{C}$

65 Amps Peak One Half Cycle Surge Current

2000 V Minimum Circuit-to-Base Insulation

Glass Passivated Silicon Chips

LTR.	INCHES	MILLIMETERS
A	.137-.167 Dia.	3.48-4.24 Dia.
B	.411-.441	10.44-11.20
C	.590-.610	14.99-15.49
D	.295-.305	7.49-7.75
E	.082-.092 Typ.	2.08-2.34
F	.038-.042	.97-1.07
G	1.0 Min.	25.40 Min.
H	.195-.205	4.95-5.21



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

RATINGS	SYMBOL	VH048X	VH148X	VH248X	VH448X	VH648X	VH848X	VH1048X	UNITS
DC Blocking Voltage, Working Peak Reverse Voltage, Peak Repetitive Reverse Voltage,	V_{RM} V_{RRM} V_{RRM}	50	100	200	400	600	800	1000	Volts
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	Volts
Peak Surge Current, $\frac{1}{2}$ Cycle at 60 Hz and $T_{HS} = 60^{\circ}\text{C}$ (Non-Rep) (Fig. 2)	I_{FSM}	65							Amps
Peak Surge Current, 1 sec. at 60 Hz and $T_{HS} = 60^{\circ}\text{C}$ (Fig. 2)	I_{FRM}	25							Amps
Avg. Forward Current at $T_{HS} = 60^{\circ}\text{C}$, (Fig. 1)	I_o	5							Amps
Junction Operating and Storage Temperature	T_J, T_{STG}	- 50 to + 135							$^{\circ}\text{C}$
Maximum Soldering Temperature & Time		10 Sec. at 265°C							

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

CHARACTERISTICS	SYMBOL			UNITS
Maximum Instantaneous Forward Voltage Drop (per diode) at 2 Amps (Fig. 3)	V_{FM}	1.4	1.5	Volts/ Leg
Maximum Reverse Recovery Time $I_F = 1$ Amp, $I_R = 2$ Amps, $I_{RR} = 0.5$ Amp	t_r	200		nsec
Maximum DC Reverse Current at Rated V_{RM}	I_{RM}	10		μA
Maximum DC Reverse Current at Rated V_{RM} and $T_J = 125^{\circ}\text{C}$	I_{RM}	4		mA
Insulation Strength Circuit to Case (Min.)		2000		Volts DC
Thermal Resistance (Typ) Junction to Case (on heat sink)	$R_{\theta JC}$	6		$^{\circ}\text{C}/\text{W}$
Junction to Air (No heat sink)	$R_{\theta JA}$	25		$^{\circ}\text{C}/\text{W}$

Part Nos. VH048X, VH148X, VH248X, VH448X and VH648X have been recognized under the Component Program of Underwriters Laboratories, Inc.

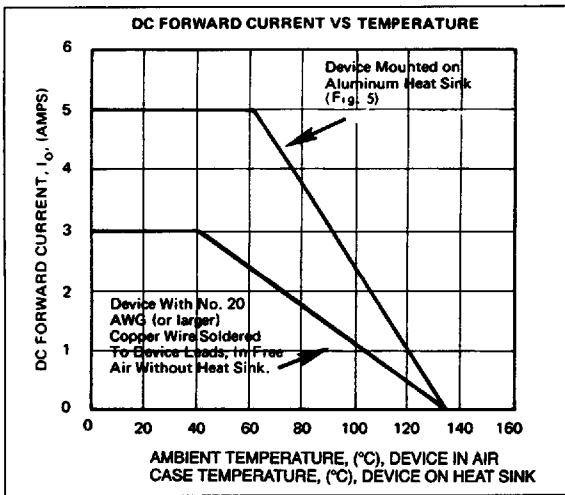


FIGURE 1

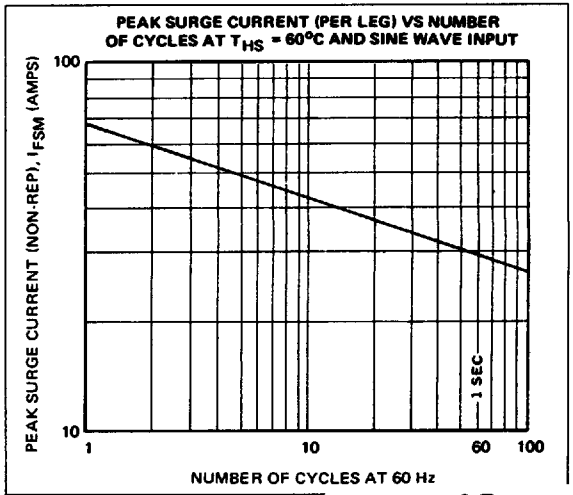


FIGURE 2

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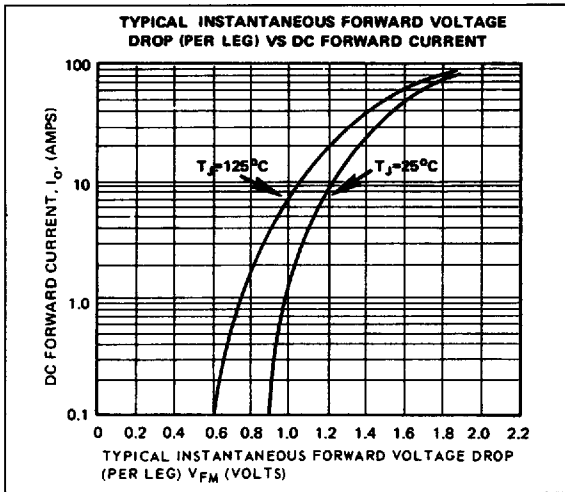


FIGURE 3

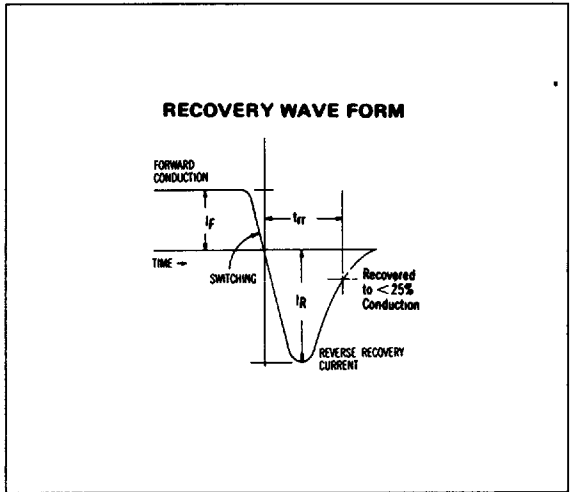


FIGURE 4

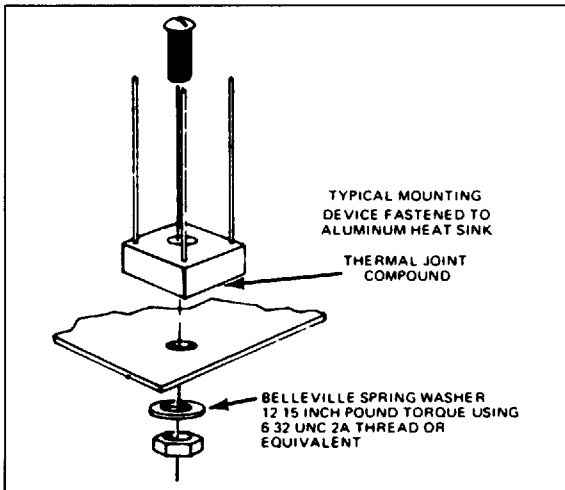


FIGURE 5

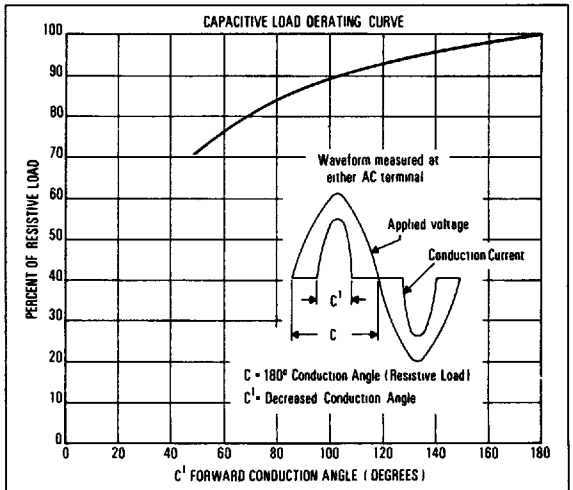


FIGURE 6