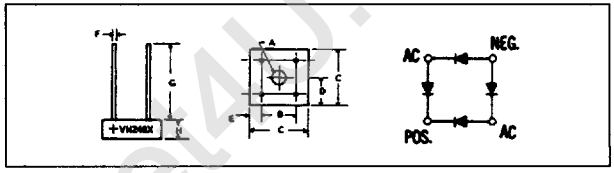
T-23-07

MICRO QUALITY
SEMICONDUCTOR, INC

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°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°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_{RWM} 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, ½ Cycle at 60 Hz and T_{HS} = 60°C (Non-Rep) (Fig.2)	I_{FSM}	65							Amps
Peak Surge Current, 1 sec. at 60 Hz and T_{HS} = 60°C (Fig. 2)	I_{FRM}	25							Amps
Avg. Forward Current at T_{HS} = 60°C, (Fig. 1)	I_O	5							Amps
Junction Operating and Storage Temperature	T_J, T_{STG}	– 50 to + 135							°C
Maximum Soldering Temperature & Time		10 Sec. at 265°C							

ELECTRICAL CHARACTERISTICS (At T_A = 25°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, 1_R = 2 Amps, I_{RR} = 0.5 Amp	t_{rr}	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°C	I_{RM}	4							mA
Insulation Strength 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. VH048X, VH148X, VH248X, VH448X and VH648X have been recognized under the Component Program of Underwriters Laboratories, Inc.

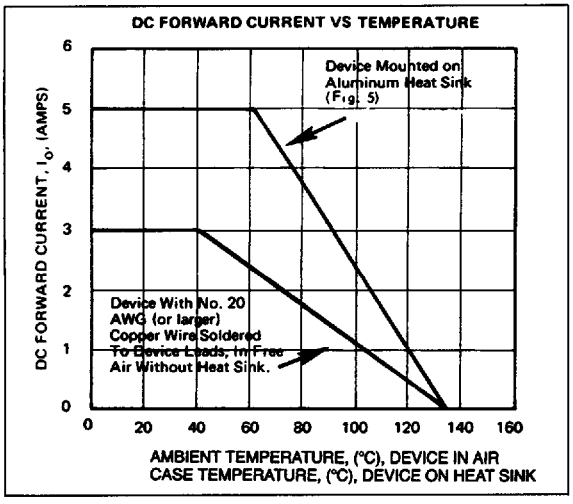


FIGURE 1

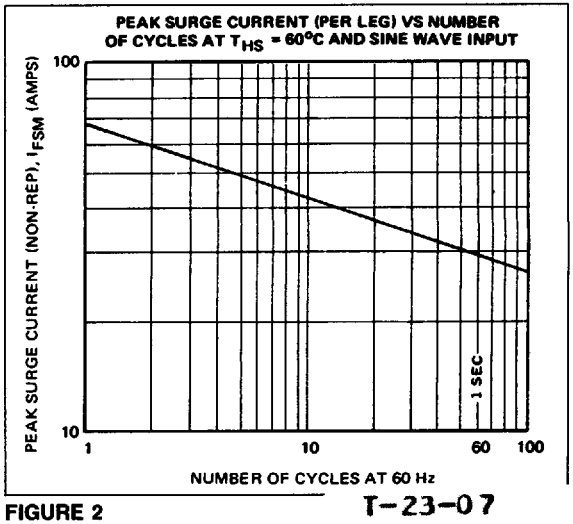


FIGURE 2

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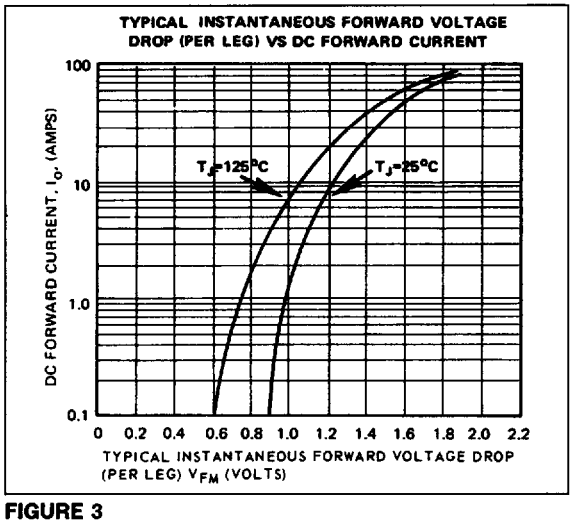

FIGURE 3

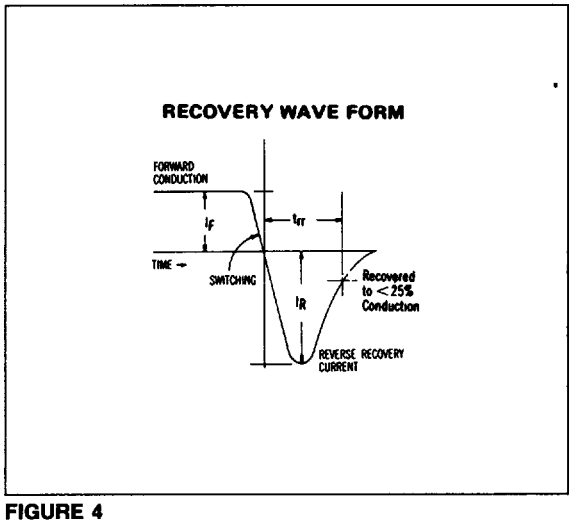

FIGURE 4

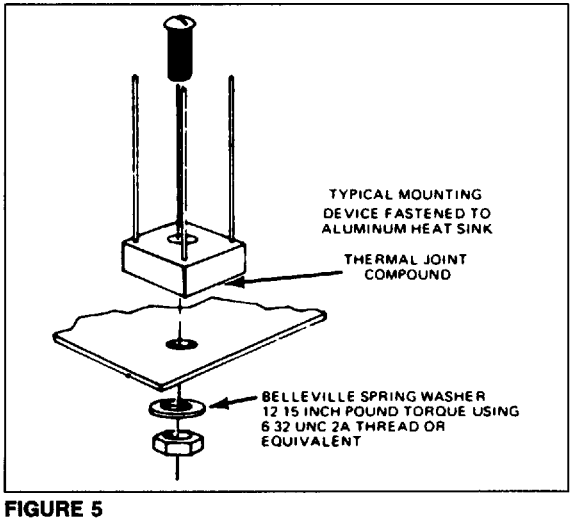

FIGURE 5

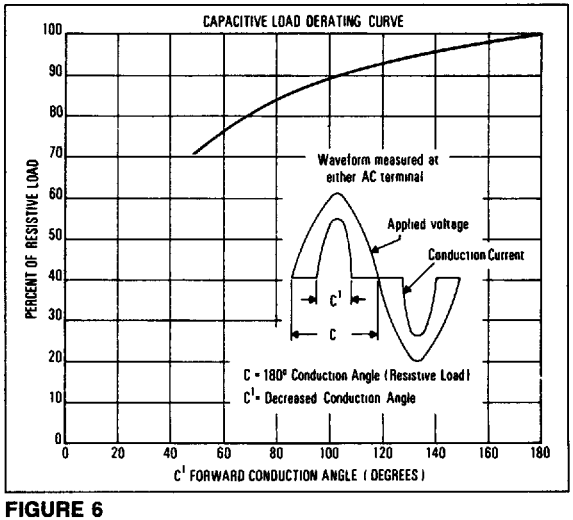

FIGURE 6