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CLS 029

EBR 6 Amp Epoxy Bridge Rectifiers — VH Series

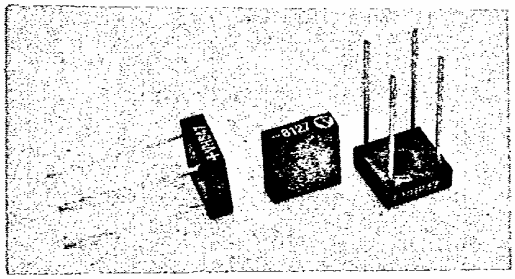
January 1984

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

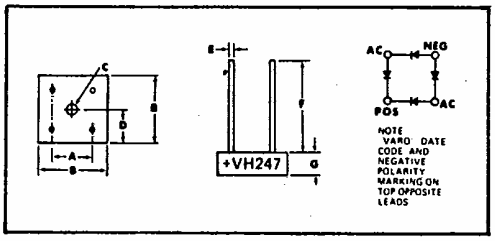
100 Amps Peak One Half Cycle Surge Current



MAXIMUM RATINGS AT T_A=25°C (Unless Otherwise Specified)	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 Reserse 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}=60°C	P_R	2				NA							Watts
Fusing Data	I^2t	40											Amps² Sec.
Peak Surge Current, ½ Cycle at 60 Hz, (Non-Rep) and T_{HS}=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}=60°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 Seconds at 265°C											

ELECTRICAL CHARACTERISTICS (At T_A=25°C (Unless Otherwise Specified)	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.



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

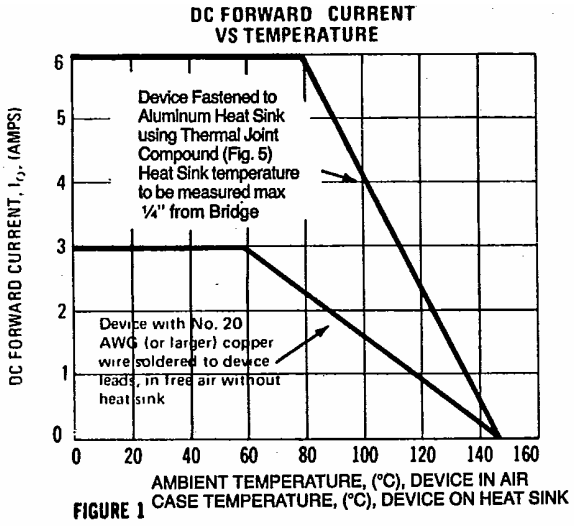


FIGURE 1

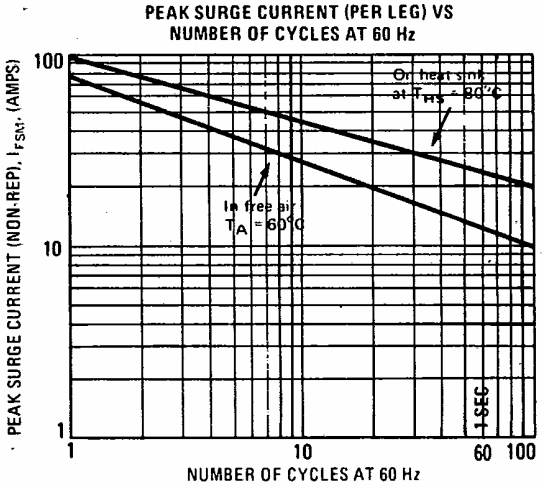


FIGURE 2

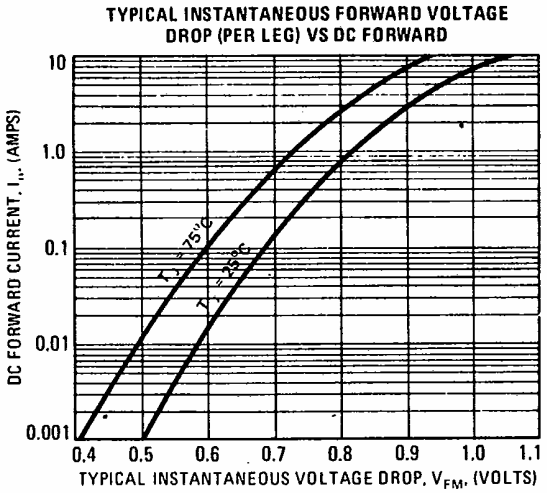


FIGURE 3

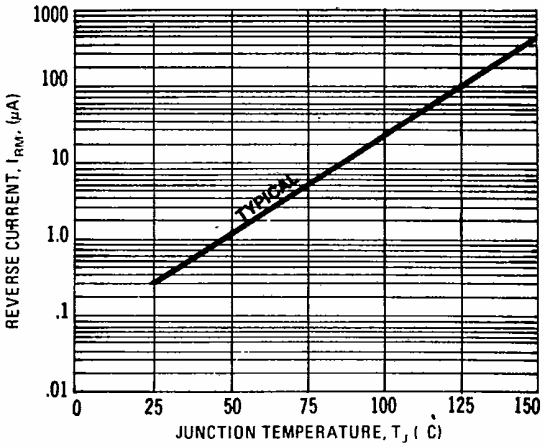


FIGURE 4

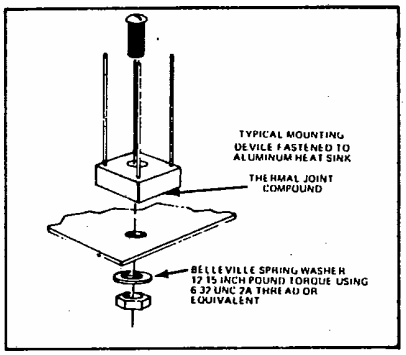


FIGURE 5

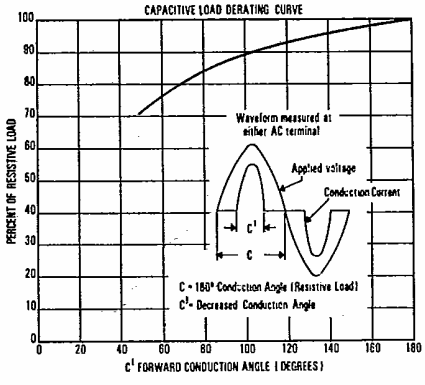


FIGURE 6

