

VE27 – VE108

1 Amp Epoxy Bridge Rectifiers

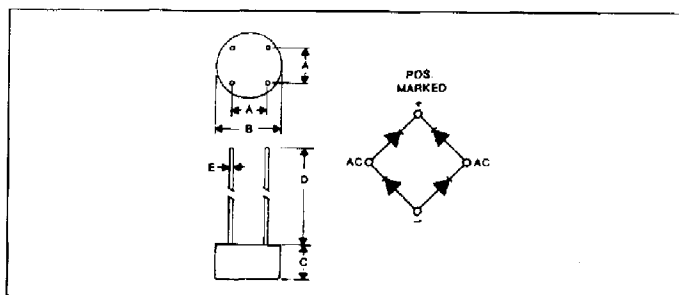
VE Series

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

Glass Passivated Silicon Chips

LTR.	INCHES	MILLIMETERS
A	.185-.215	4.70-5.46
B	.350-.365	8.89-9.27
C	.190-.215	4.83-5.46
D	1.0 MIN.	25.4 MIN.
E	.022-.028 DIA.	.558-.711 DIA.

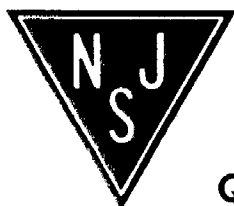


MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	CONTROLLED AVALANCHE				NON-CONTROLLED AVALANCHE							UNITS
		VE27	VE47	VE67	VE87	VE08	VE18	VE28	VE48	VE68	VE88	VE108	
Series Number													
DC Blocking Voltage	V_{RM}												
Working Peak Reverse Voltage	V_{RWM}	200	400	500	800	50	100	200	400	600	800	1000	Volts
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 μSEC Square Wave	P_{RM}	200				NA							Watts
Continuous Power Dissipation in $V_{(BR)}$ Region at $T_A = 65^\circ\text{C}$	P_R	1				NA							Watts
Peak Surge Current, $\frac{1}{2}$ Cycle at 60 Hz. (Non-Rep) at $T_A = 65^\circ\text{C}$ (Fig. 2)	I_{FSM}	25											Amps
Peak Surge Current, 1 sec at 60 Hz and $T_A = 65^\circ\text{C}$ (Fig. 2)	I_{FRM}	4											Amps
Avg. Forward Current at $T_A = 65^\circ\text{C}$ (Fig. 1)	I_O	1											Amps
Junction Operating and Storage Temperature Range	T_J, T_{STG}	- 50 to + 150											$^\circ\text{C}$
Max Soldering Temperature & Time		10 Sec at 265°C											

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

CHARACTERISTICS	SYMBOL	CONTROLLED AVALANCHE				NON-CONTROLLED AVALANCHE							UNITS
		VE27	VE47	VE67	VE87	VE08	VE18	VE28	VE48	VE68	VE88	VE108	
Series Number													
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 1 Amp (Fig. 3)	V_{FM}	1.2											Volt
Maximum Reverse Current at Rated V_{RM}	I_{RM}	5											μA
Maximum Reverse Current at Rated V_{RM} at $T_J = 125^\circ\text{C}$ (Fig. 4)	I_{RV}	500											μA
Insulation strength from Circuit to case (Min.)		2000											Vdc
Thermal Resistance (Typ) Junction to Ambient	$R_{\theta JA}$	45											$^\circ\text{C/W}$



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