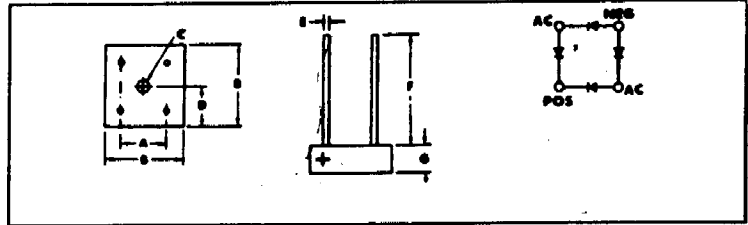


New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

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 $T_A = 25^\circ\text{C}$ unless otherwise noted)

RATINGS	SYMBOL	CONTROLLED AVALANCHE				NON-CONTROLLED AVALANCHE						UNITS	
		VS247	VS447	VS647	VS847	VS048	VS148	VS248	VS448	VS648	VS848		VS1048
Series Number													
DC Blocking Voltage	V_{RM}	200	400	600	800	50	100	200	400	600	800	1000	Volts
Working Peak Reverse Voltage	V_{RWM}												
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}	300				NA						Watts	
Continuous Power Dissipation in $V_{(BR)}$ Region at $T_A = 60^\circ\text{C}$	P_R	1				NA						Watts	
Peak Surge Current, 1/2 Cycle at 60 Hz (Non-Rep) at $T_A = 60^\circ\text{C}$ (Fig. 2)	I_{FSM}					50						Amps	
Peak Surge Current, 1 sec at 60 Hz and $T_A = 60^\circ\text{C}$ (Fig. 2)	I_{FRM}					8						Amps	
Avg. Forward Current at $T_A = 60^\circ\text{C}$ (Fig. 1)	I_O					2						Amps	
Junction Operating and Storage Temperature Range	T_J, T_{STG}					- 50 to + 150						$^\circ\text{C}$	
Maximum Soldering Temperature & Time						10 Sec at 265°C							
Fusing Data	I^2t					10						Amps ² -Sec.	

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

CHARACTERISTICS	SYMBOL	CONTROLLED AVALANCHE				NON-CONTROLLED AVALANCHE						UNITS	
		VS247	VS447	VS647	VS847	VS048	VS148	VS248	VS448	VS648	VS848		VS1048
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 2 Amp (Fig. 3)	V_{FM}					1.2						Volts/Leg	
Maximum Reverse Current at Rated V_{RM}	I_{RM}					5						μA	
Maximum Reverse Current at Rated V_{RM} at $T_A = 125^\circ\text{C}$	I_{RM}					500						μA	
Insulation Strength From Circuit to Case (min.)						2000						Volts DC	
Thermal Resistance (Typ.) Junction To Case (On Heat Sink)	$R\theta_{JC}$					6						$^\circ\text{C/W}$	
Junction To Air (No Heat Sink)	$R\theta_{JA}$					25						$^\circ\text{C/W}$	

