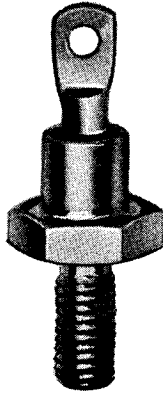


Series 21



Avalanche Silicon Power Rectifiers



ELECTRICAL CHARACTERISTICS:

Maximum Average Forward Current, Single Phase Half
 Wave DC Rating at 131° C. Case Temperature 22 amperes
 Maximum Surge Current
 (one cycle of 60 CPS sine wave) 250 amperes
 Peak Forward Voltage
 at 30 Amps (25° C. Case Temp.) 1.2 Volts Maximum
 Rated Peak Reverse Voltage Range 50 to 1600 Volts
 Maximum *FCA Reverse Current
 at 150° C. Case Temperature 1.0 Milliamps
 Maximum Operating Frequency 100,000 CPS
 Maximum I²t (less than 8 ms) 250 Amps² - Second
 Reverse Power Ratings 0.16 Joules
 *FCA = Full Cycle Average (measured with a DC meter)

MECHANICAL CHARACTERISTICS:

Base Steel stud and base with a #10-32 UNF-2A thread for through mounting on a heat sink. Nickel plating produces low contact resistance and prevents corrosion.
 Header Glass to metal construction. Hermetically sealed to base.
 Weight Approximately 0.16 ounces
 Mounting Position May be mounted in any position
 Mounting Torque 30 inch pounds maximum
 Dimensions In accordance with JEDEC DO-4 outline

THERMAL CHARACTERISTICS:

Storage Temperature Range -65° C. to +200° C.
 Operating Temperature Range
 Junction -65° C. to +190° C.
 Impedance (°C/W), Junction to Case 2.0 Maximum

ENVIRONMENTAL SPECIFICATIONS:

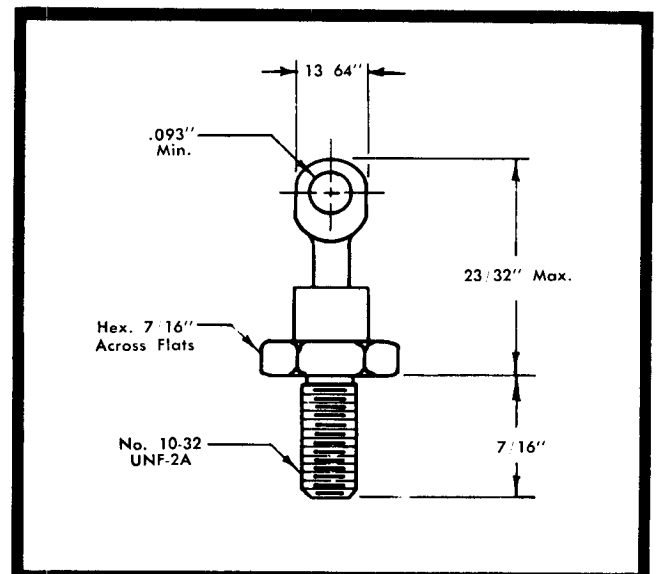
Tests in accordance with (MIL-E-1)
 Tests include:

1. Temperature cycling
2. Salt spray
3. Vibration
4. Shock
5. Moisture resistance
6. Temperature soak

Ratings

JEDEC Numbers	Catalog Number Polarity		Peak Reverse Voltage
	Standard	Reverse	
1N1199, 1N1199A, 1N2246	S2105	R2105	50
1N1200, 1N1200A, 1N2248	S2110	R2110	100
1N1201, 1N1201A	S2115	R2115	150
1N1202, 1N1202A, 1N2250, 1N2784, 1N3964, 1N4506	S2120	R2120	200
	S2125	R2125	250
1N1203, 1N1203A, 1N2252	S2130	R2130	300
	S2135	R2135	350
1N1204, 1N1204A, 1N2254, 1N2785, 1N3965, 1N4507	S2140	R2140	400
	S2145	R2145	450
1N1205, 1N1205A, 1N2256	S2150	R2150	500
	S2160	R2160	600
1N1206, 1N1206A, 1N2258, 1N3966, 1N4508	S2170	R2170	700
	S2180	R2180	800
1N3670, 1N3670A	S2190	R2190	900
	S21100	R21100	1000
1N2260, 1N3671, 1N3671A, 1N3967, 1N4509	S21120	R21120	1200
1N3672, 1N3672A			
1N2262, 1N3673, 1N3673A, 1N9510			
1N4511			

Diodes are available with voltage ratings up to 1600 PRV.



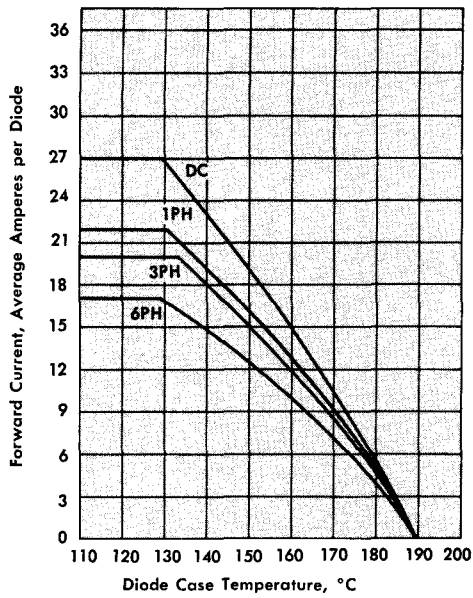


Fig. 1—Load current versus case temperature.

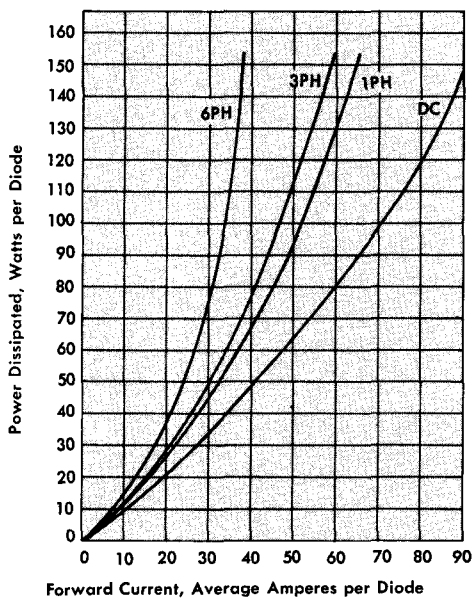


Fig. 2—Maximum power dissipation versus forward current.

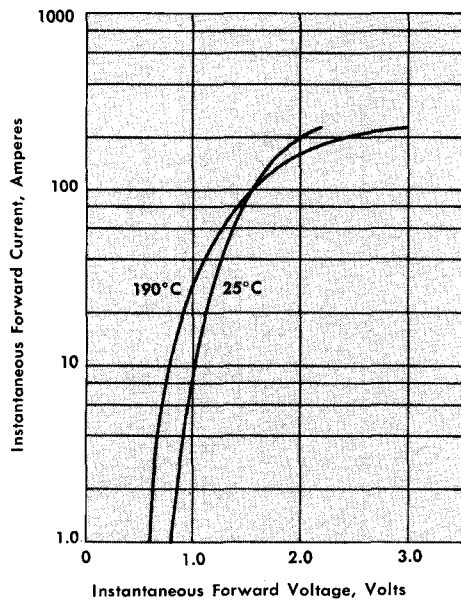


Fig. 3—Maximum forward characteristics.

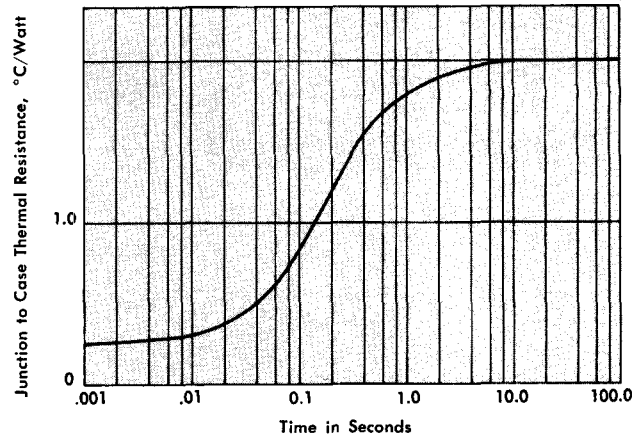


Fig. 4—Transient thermal resistance.

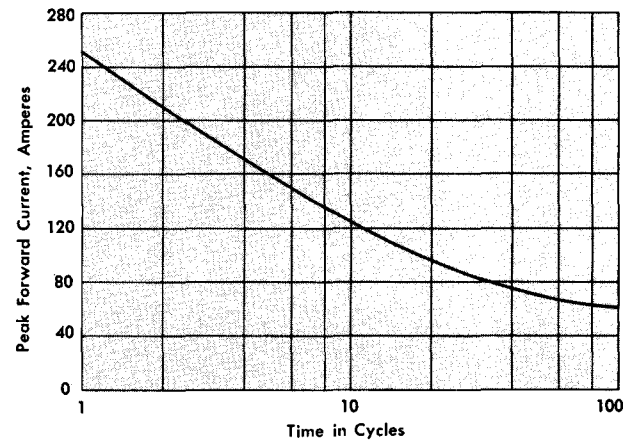


Fig. 5—Maximum surge current at rated load.

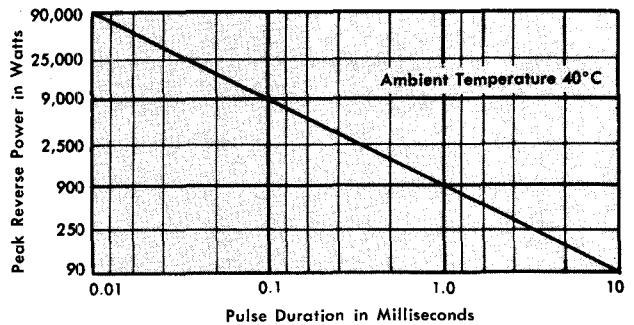


Fig. 6—Estimated reverse power surge ratings - non recurrent.

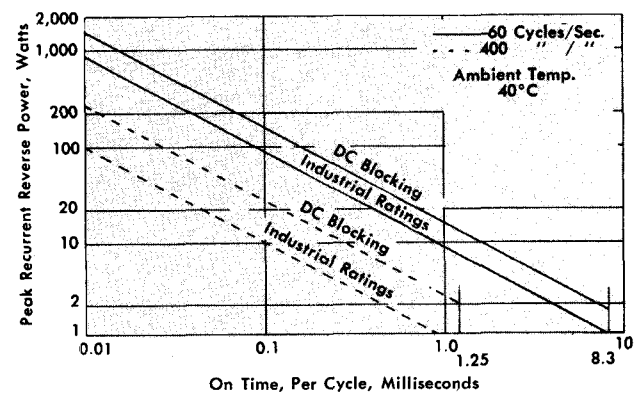


Fig. 7—Reverse power surge ratings - recurrent.