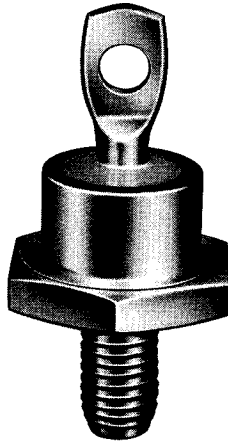


Series 34



Avalanche Silicon Power Rectifiers



ELECTRICAL CHARACTERISTICS:

Maximum Average Forward Current, Single Phase Half
 Wave DC Rating at 122° C. Case Temperature 45 amperes
 Maximum Surge Current
 (one cycle of 60 CPS sine wave) 700 amperes
 Peak Forward Voltage
 at 90 Amps (25° C. Case Temp.) 1.15 Volts Maximum
 Rated Peak Reverse Voltage Range 50 to 1600 Volts
 Maximum *FCA Reverse Current
 at 150° C. Case Temperature 2.0 Milliamps
 Maximum Operating Frequency 10,000 CPS
 Max. I²t (less than 8 ms) 2100 Amps² - Second
 Reverse Power Rating 0.60 Joules
 *FCA = Full Cycle Average (measured with a DC meter)

MECHANICAL CHARACTERISTICS:

Base Steel stud and base with a 1/4"-28 UNF-2A
 thread for through mounting on a heat
 sink. Nickel plating of base produces low
 contact resistance and prevents corrosion.
 Header Glass to metal construction. Hermetically sealed to base.
 Weight Approximately 0.5 ounces
 Mounting Position May be mounted in any position
 Mounting Torque 75 inch pounds maximum
 Dimensions In accordance with JEDEC DO-5 outline

THERMAL CHARACTERISTICS:

Storage Temperature Range -65° C. to +200° C.
 Operating Temperature
 Junction -65° C. to +190° C.
 Impedance (°C/W), Junction to Case 1.25 Maximum

ENVIRONMENTAL SPECIFICATIONS:

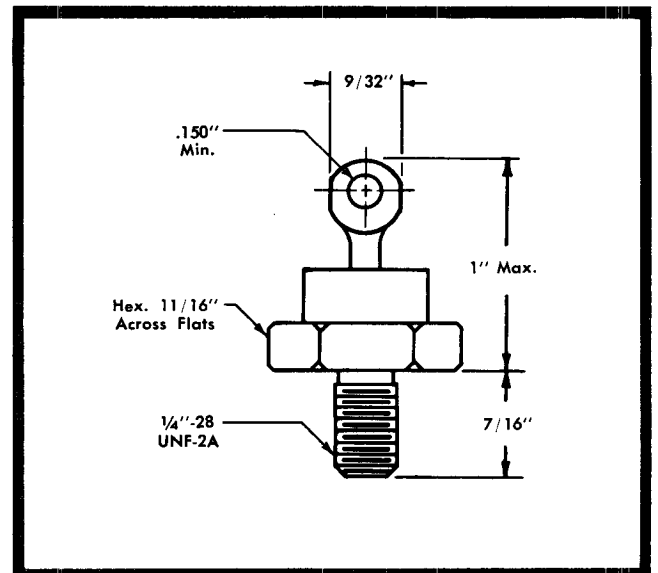
Tests in accordance with (MIL-E-1)

- 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	
1N1183, 1N2458	S3405	R3405	50
1N1184, 1N2459	S3410	R3410	100
1N1185, 1N2460	S3415	R3415	150
1N1186, 1N2461, 1N2788, 1N3968, 1N4525	S3420	R3420	200
1N2462	S3425	R3425	250
1N1187, 1N2282, 1N2463 1N2464	S3430	R3430	300
	S3435	R3435	350
1N1188, 1N2283, 1N2465, 1N2789, 1N3969, 1N4526	S3440	R3440	400
	S3445	R3445	450
	S3450	R3450	500
1N1189, 1N2284, 1N2466 1N1190, 1N2285, 1N2467, 1N3970, 1N4527	S3460	R3460	600
1N3765	S3470	R3470	700
1N2286, 1N3766, 1N3971, 1N4528	S3480	R3480	800
1N3767	S3490	R3490	900
1N2287, 1N3768, 1N4529	S34100	R34100	1000
	S34110	R34110	1100
1N2288, 1N4530	S34120	R34120	1200

Diodes are available with voltage ratings up to 1600 PRV.



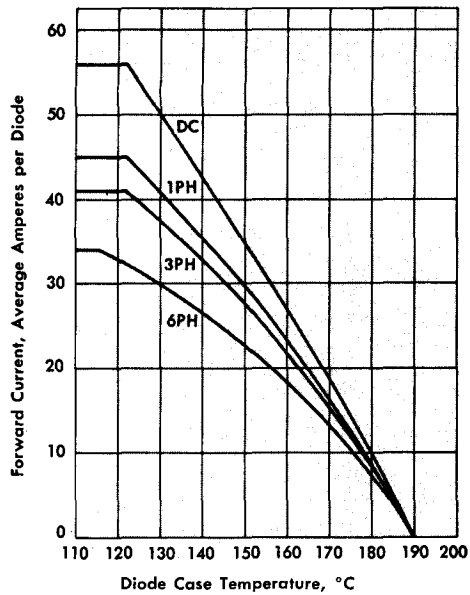


Fig. 1—Load current versus case temperature.

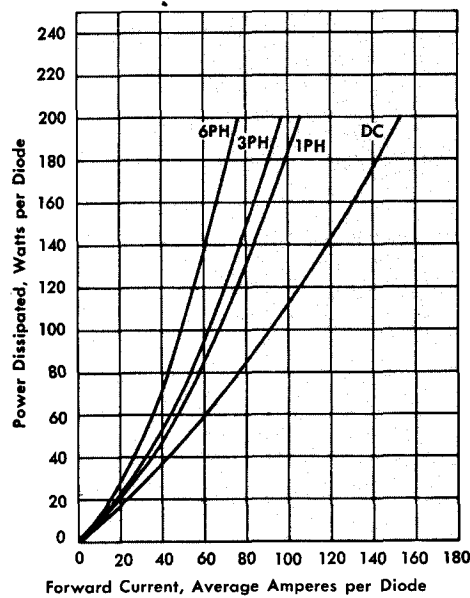


Fig. 2—Maximum power dissipation versus forward current.

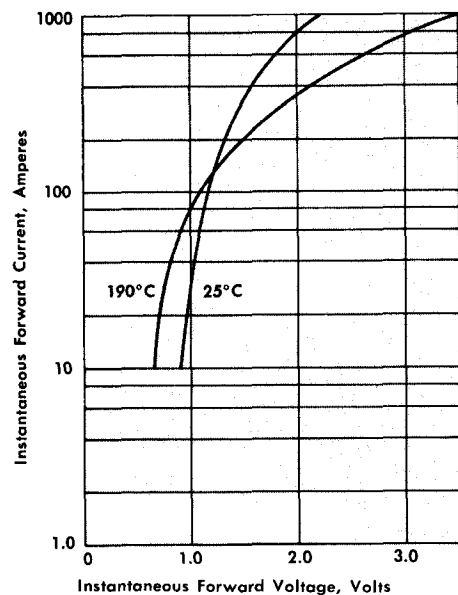


Fig. 3—Maximum forward characteristics.

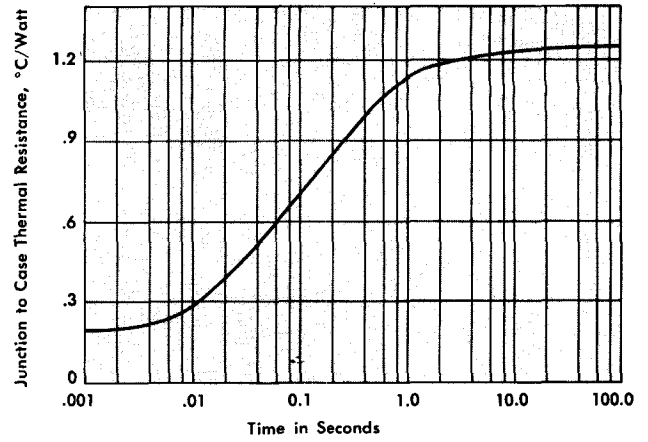


Fig. 4—Transient thermal resistance.

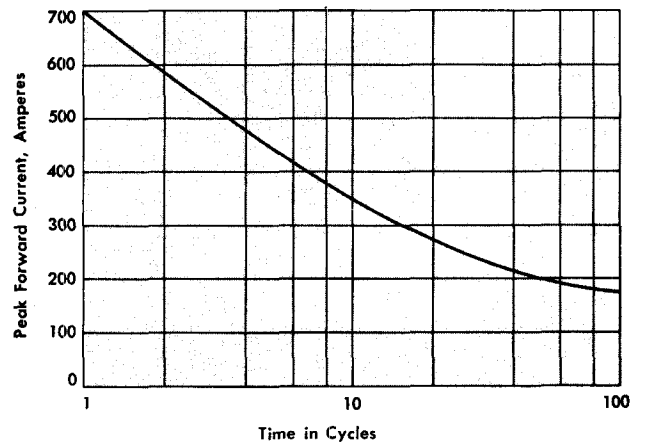


Fig. 5—Maximum surge current at rated load.

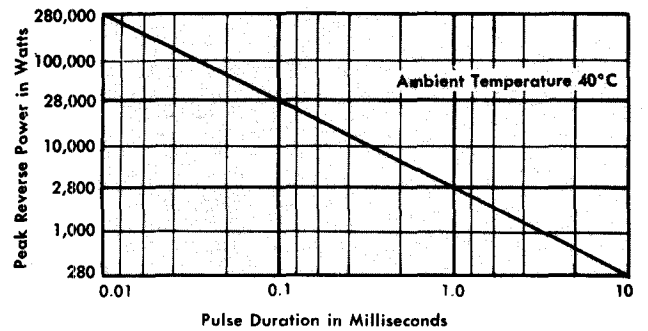


Fig. 6—Estimated reverse power surge ratings - non recurrent.

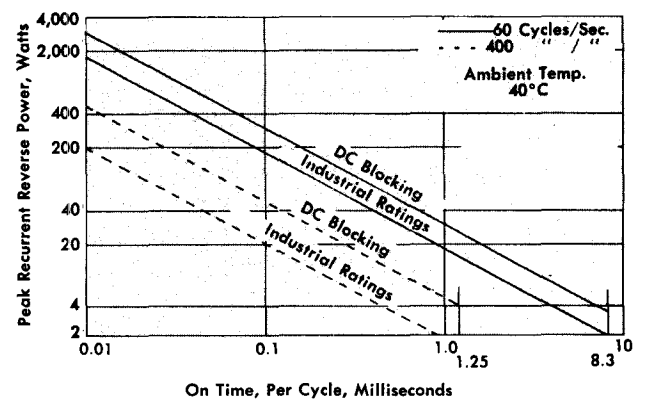


Fig. 7—Reverse power surge ratings - recurrent.