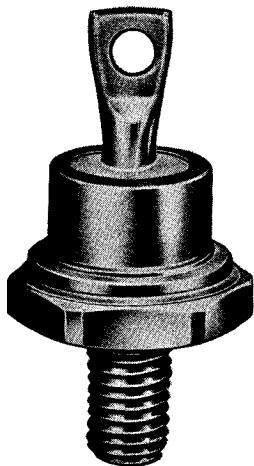


Series 36

SYNTRON

Avalanche Silicon Power Rectifiers



ELECTRICAL CHARACTERISTICS:

Maximum Average Forward Current, Single Phase Half Wave DC Rating at 121° C. Case Temperature	65 amperes
Maximum Surge Current (one cycle of 60 CPS sine wave)	800 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. I _t t (less than 8 ms)	2750 Amps ² - Second
Reverse Power Rating	0.60 Joules

*FCA = Full Cycle Average (measured with a DC meter)

MECHANICAL CHARACTERISTICS:

Base	High Strength Copper 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 0.6 ounces
Mounting Position	May be mounted in any position
Mounting Torque	30 in. lbs. maximum
Dimensions	In accordance with JEDEC DO-5 Outline

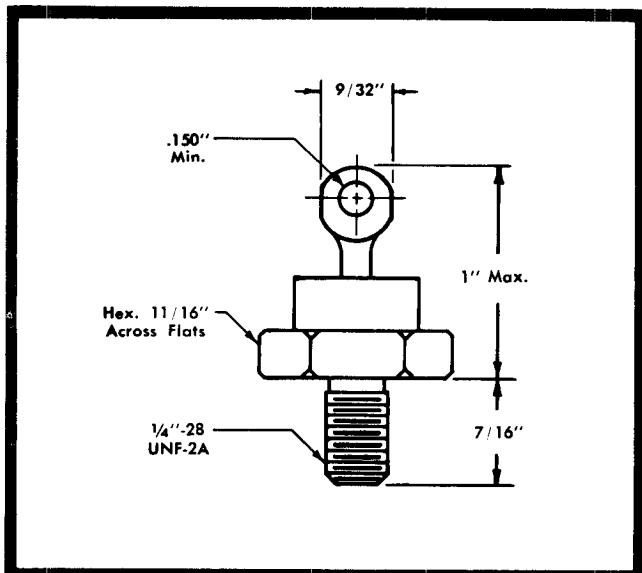
THERMAL CHARACTERISTICS:

Storage Temperature Range	-65° C. to +200° C.
Operating Temperature Range	
Junction	-65° C. to +190° C.
Impedance (°C/W): Junction to Case	0.8 Max.

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



Diodes are available with voltage ratings up to 1600 PRV.

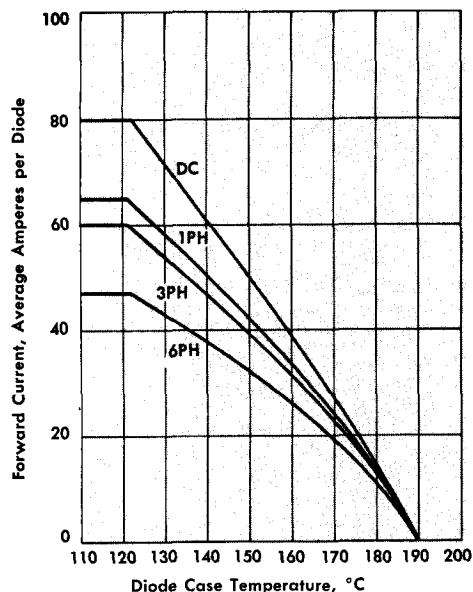


Fig. 1—Load current versus case temperature.

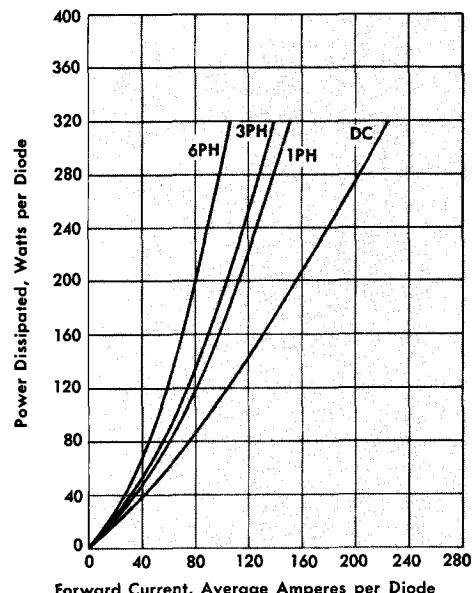


Fig. 2—Maximum power dissipation versus forward current.

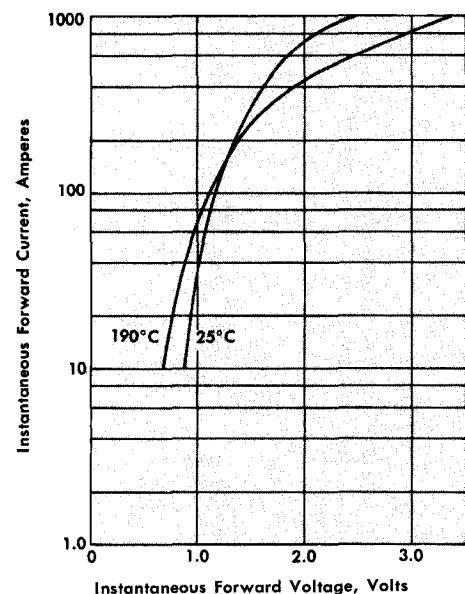


Fig. 3—Maximum forward characteristics.

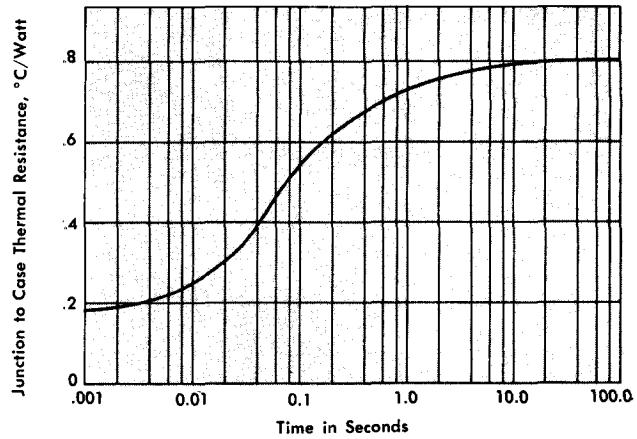


Fig. 4—Transient thermal resistance.

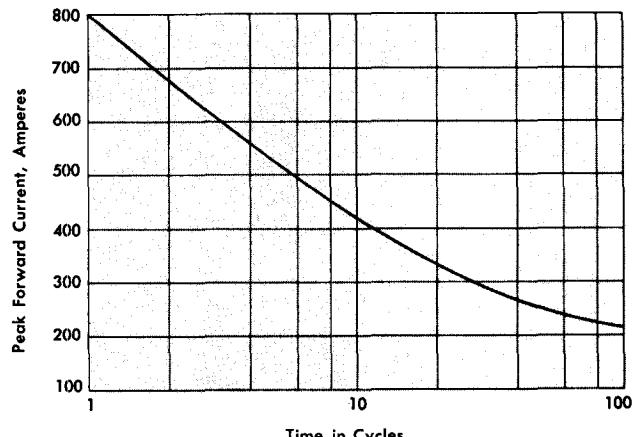


Fig. 5—Maximum surge current at rated load.

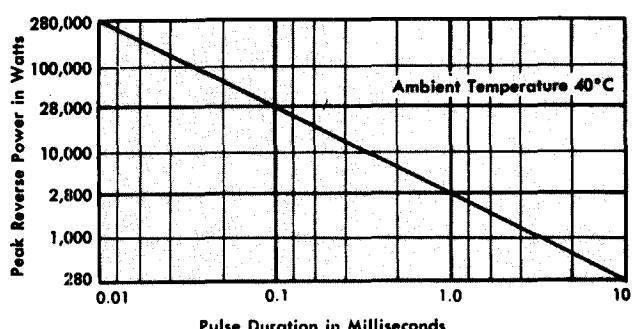


Fig. 6—Estimated reverse power surge ratings - non recurrent.

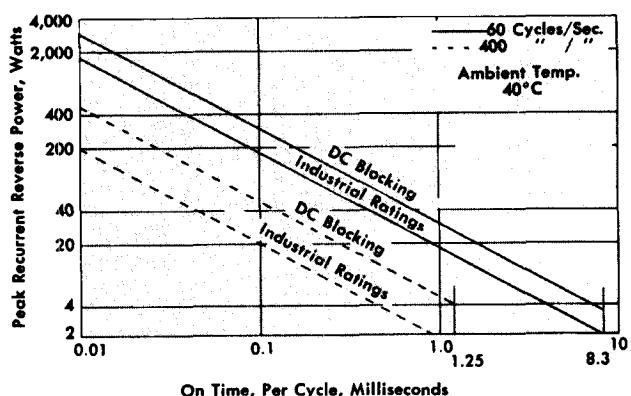


Fig. 7—Reverse power surge ratings - recurrent.