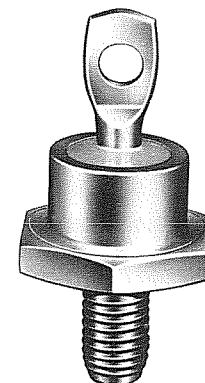
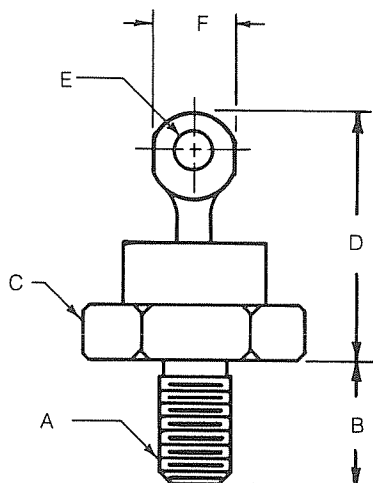


Avalanche Silicon Power Rectifiers

Series
32



| Catalog Number | JEDEC Numbers | Peak Reverse Voltage |
|----------------|--|----------------------|
| S3205 | 1N248A, 1N248B, 1N248C, 1N1301, 1N1434, 1N2154, 1N3208 | 50 |
| S3210 | 1N249A, 1N249B, 1N249C, 1N1302, 1N1435, 1N2155, 1N3209 | 100 |
| S3215 | 1N250A, 1N250B, 1N250C, 1N1304, 1N1436, 1N2156, 1N3210 | 150 |
| S3220 | | 200 |
| S3225 | | 250 |
| S3230 | 1N1306, 1N2157, 1N3211 | 300 |
| S3235 | | 350 |
| S3240 | 1N1437, 1N2158, 1N3212 | 400 |
| S3245 | | 450 |
| S3250 | 1N2159 | 500 |
| S3260 | 1N1438, 1N2160 | 600 |
| S3270 | | 700 |
| S3280 | | 800 |
| S3290 | | 900 |
| S32100 | | 1000 |
| S32110 | | 1100 |
| S32120 | | 1200 |
| S32130 | | 1300 |
| S32140 | | 1400 |
| S32150 | | 1500 |
| S32160 | | 1600 |

| Dim. | Inches | | Millimeters | | Notes |
|------|---------|---------|-------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | — | — | — | — | 1 |
| B | .44 | .47 | 11.11 | 11.89 | 2 |
| C | .67 | .69 | 16.94 | 17.46 | |
| D | — | 1.00 | — | 25.40 | |
| E | .15 | .18 | 3.81 | 4.69 | |
| F | — | .28 | — | 7.14 | |

Note 1:
¼"-28 UNF-2A

Note 2:
Across Flats

Electrical Characteristics

| | |
|--|------------------------------|
| Maximum Average Forward Current, Single-Phase, Half-Wave DC Rating at 123°C Case Temperature | 37 Amps. |
| Maximum Surge Current (one cycle of 60 Hz sine wave) | 600 Amps. |
| Peak Forward Voltage at 90 Amperes (25°C Case Temperature) | 1.2 Volts Max. |
| Rated Peak Reverse Voltage Range | 50 to 1600 Volts |
| Maximum Peak Reverse Current at 150°C Case Temperature | 2.0 MA |
| Maximum Operating Frequency | 10,000 Hz |
| Maximum I ² t (less than 8 ms) | 1500 Amps. ² Sec. |
| Reverse Power Rating | 0.60 Joule |

Mechanical Characteristics

| | |
|-------------------|--|
| Base | Steel stud and base with a ¼"-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 ounce (14 grams) |
| 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 Range Junction | -65°C to +190°C |
| Impedance (°C/W), Junction to Case | 1.50 Max. |

Environmental Specifications

Tests in accordance with (MIL-E-1)
 Tests include: Temperature cycling, Salt spray, Vibration, Shock, Moisture resistance and Temperature soak.

Figure 1
Load current versus case temperature

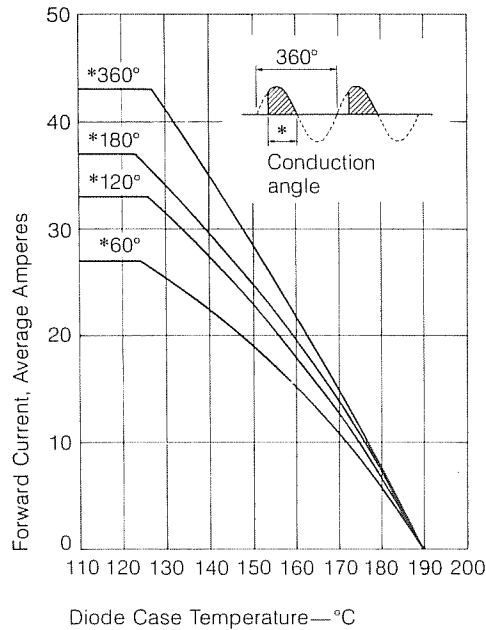


Figure 2
Maximum power dissipation versus forward current

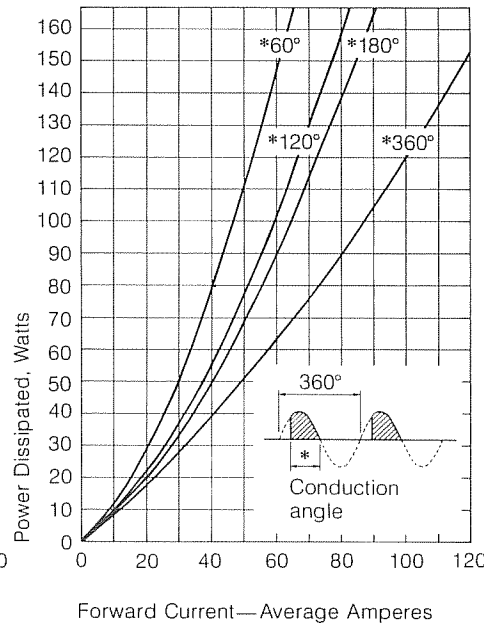


Figure 3
Maximum forward characteristics

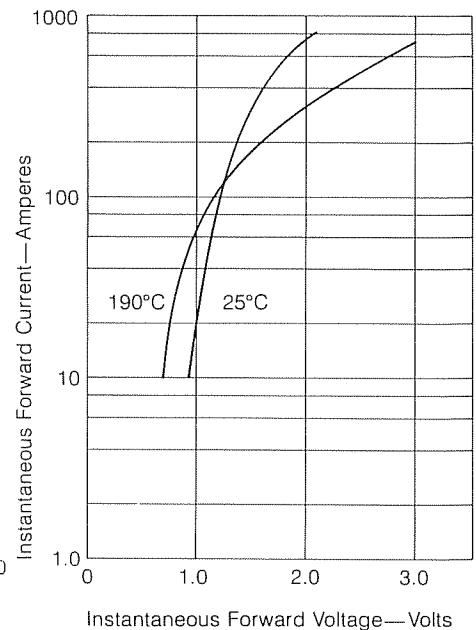


Figure 4
Transient thermal impedance

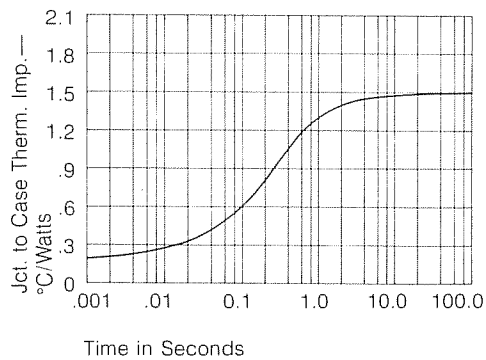


Figure 5
Maximum surge current at rated load

