20 STERN AVE. SPRINGFIELD, NEW JERSEY 07081

CONTROLLED AVALANCHE

Silicon Rectifier

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35A Avg. **Up to 1200V**

1N4529-30 MAXIMUM ALLOWABLE RATINGS

| Туре | Repetitive & Working. Peak Reverse Voltage* VRM(rep), VRM(wkg) TJ = -65°C to +175°C (Note: 1) | MINIMUM Avalanche Breakdown Voltage, BV _{II} , (5 mA test current at T _J == 25°C) | MAXIMUM Avalanche Breakdown Voltage, BV _R , (5 mA test current at T _J == 25°C) | Full-Load Reverse Current (full-cycle avg., 115°C Tc, 1 φ), Ιπανν | | | | |
|----------------------|---|---|--|---|--|--|--|--|
| | Volts** | Volts | Volts | Milliamperes** | | | | |
| 1N4529,R 1N4530,R | 1000 1200 | 1250 1500 | 1550 1930 | 2.5 2.0 | | | | |

Average Forward Current, I_0 ($T_c = +115^{\circ}$ C, single phase) 35 Amperes**

Peak One-Cycle Surge Current (non-repetitive), I_{FM} (surge) 500 Amperes**

Minimum I²t Rating (see Curve 6) 500 Ampere² seconds

Reverse Power Surge (non-repetitive, 10 μ sec., square wave) $T_J = +25^{\circ}$ C 12 Kilowatts $T_J = +175^{\circ}$ C (For other conditions, see Curve 2) Average DC Reverse Power in Breakdown Region $(-65^{\circ}\text{C} \le T_{\text{C}} \le +115^{\circ}\text{C})$ (Note: 2) 20 Watts** Peak Reverse Power in Breakdown Region (repetitive) (Note: 2) 100 Watts Forward Peak Voltage Drop, V_{FM} ($T_{\text{C}} = +115^{\circ}\text{C}$, $I_{\text{O}} = 12$ ampere avg.) 1.4 Volts** Thermal Resistance, $\theta_{\text{J.C.}}$ 1.0°C/Watt Operating Junction Temperature, T_{J} 1.0°C/Watt Storage Temperature, $T_{\text{Alg.}}$ 1.0°C/*
Stud Torque 20 Watts** 20 Watts** 21 Storage Temperature, T_{J} 20 Watts** 21 Storage Temperature, T_{J} 21 Storage Temperature, T_{J} 22 Storage Temperature, T_{J} 25 Kg-cm *Maximum voltages apply with a heatsink thermal resistance of 8°C/watt, or less, at maximum rated junction temperature. **Indicates values included in JEDEC Type Number Registration.

NOTES:

(1) VRM(rep) applies for a conventional AC to DC conversion application. VRM(rep) and VRM(wkg) can be considered unlimited providing that the additional reverse power generation is taken into account by allowing for its influence on the forward current rating. Considerations similar to voltage regulator diode applications would apply.

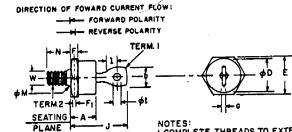
(2) These ratings assume no forward power dissipation. In applications requiring both forward and reverse average power dissipation, reduce case temperature as determined from the maximum case temperature versus average forward current curve by 2.0°C for every watt of average reverse power dissipation.

(2)

Case temperature, Tc, is measured at the center of any one of the hex flats.

OUTLINE DRAWING

| | INCHES | | MILLIMETERS | | NOTES |
|----------------|--------|-------|-------------|-------|-------|
| SYMBOL | MIN. | MAX. | MIN. | MAX. | NUIES |
| Α | | .450 | | 11.43 | |
| ь | | .375 | | 9.53 | 2 |
| С | | .080 | | 2.03 | |
| φD | | .667 | | 16.94 | |
| E | .667 | .687 | 16.94 | 17,45 | |
| F | .115 | .200 | 2.92 | 5.08 | |
| F ₁ | .060 | | 1.52 | | |
| J | | 1.000 | | 25.40 | |
| 1 | .156 | | 3.96 | | 4 |
| φМ | .220 | .249 | 5.59 | 6.32 | ı |
| Ν | .422 | .453 | 10.72 | 11.51 | |
| φt | .140 | .175 | 3.56 | 4,45 | |
| W | | | | | 1,3 |



I.COMPLETE THREADS TO EXTEND TO WITHIN 2-1/2 THREADS OF SEATING PLANE. 2. ANGULAR ORIENTATION OF TERMINAL IS UNDEFINED.

2. ANOULAR ONTENTIATION OF THE DIAMETER OF PLATED THREADS SHALL BE BASIC PITCH DIAMETER (.2268", 5.74 MM) REF (SCREW THREAD STANDARDS FOR FEDERAL SERVICES 1957) HANDBOOK H28 1957 PI.

4 MINIMUM FLAT. EIA-NEMA STANDARD OUTLINE, NEMA SK-51- EIA RS-241. INSULATING HARDWARE IS AVAILABLE UPON REQUEST.

COMPLIES WITH EIA REGISTERED OUTLINE DO-5



Quality Semi-Conductors