



1S20 THRU 1S60

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current - 1.0 Ampere

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High forward surge current capability
- High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

MECHANICAL DATA

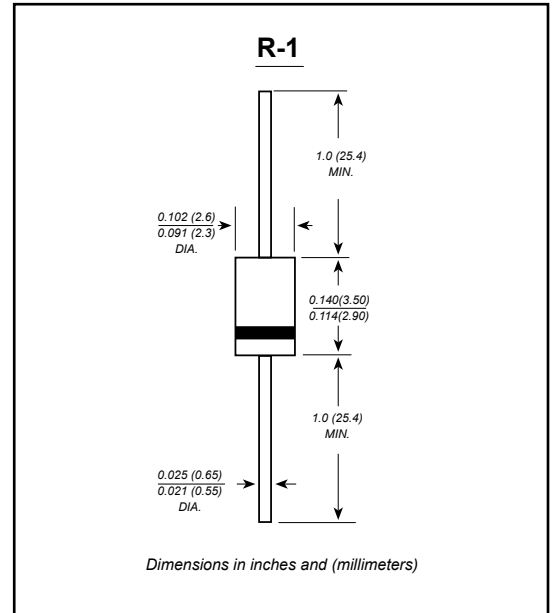
Case: R-1 molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.007 ounce, 0.20 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Characteristic | 1S20 | 1S30 | 1S40 | 1S50 | 1S60 | UNITS |
|----------------------------------------------------------------------------------------------------|-------------|------|------|-------------|------|-------|
| Maximum Recurrent Peak Reverse Voltage | 20 | 30 | 40 | 50 | 60 | V |
| Maximum RMS Voltage | 14 | 21 | 28 | 35 | 42 | V |
| Maximum DC Blocking Voltage | 20 | 30 | 40 | 50 | 60 | V |
| Maximum Average Forward Rectified Current See Fig. 1 | 1.0 | | | | | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 30 | | | | | A |
| Maximum Instantaneous Forward Voltage at 1.0A | 0.55 | | 0.70 | | | V |
| Maximum DC Reverse Current Ta=25°C | 1.0 | | | | | mA |
| at Rated DC Blocking Voltage Ta=100°C | 10 | | | | | mA |
| Typical Junction Capacitance (Note1) | 110 | | | 80 | | pF |
| Typical Thermal Resistance RθJA (Note 2) | 10 | | | 15 | | °C/W |
| Operating Temperature Range Tj | -65 to +125 | | | -65 to +150 | | °C |
| Storage Temperature Range Tstg | -65 to +150 | | | | | °C |

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.



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RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

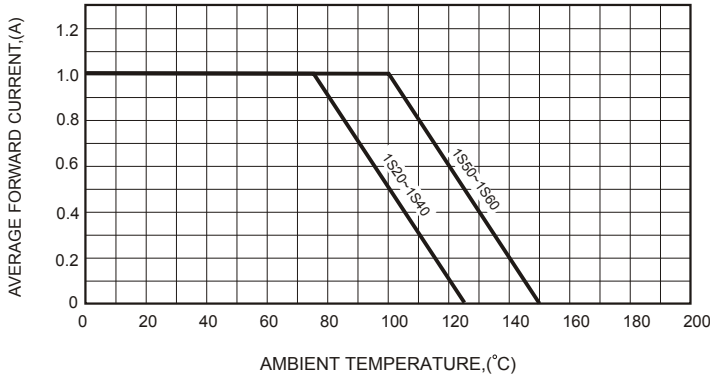


FIG.2-TYPICAL FORWARD CHARACTERISTICS

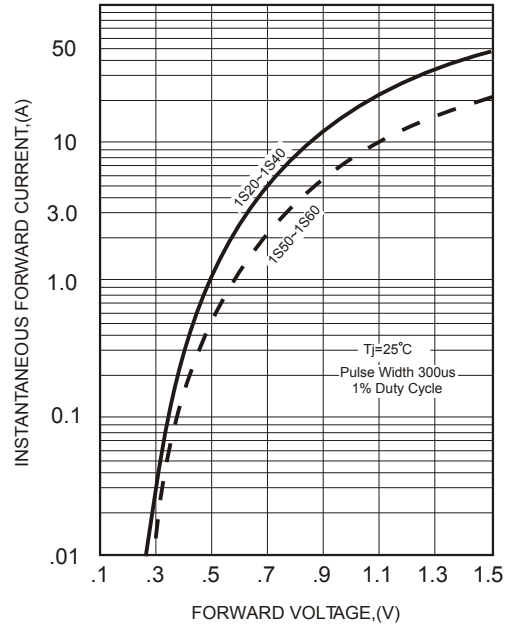


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

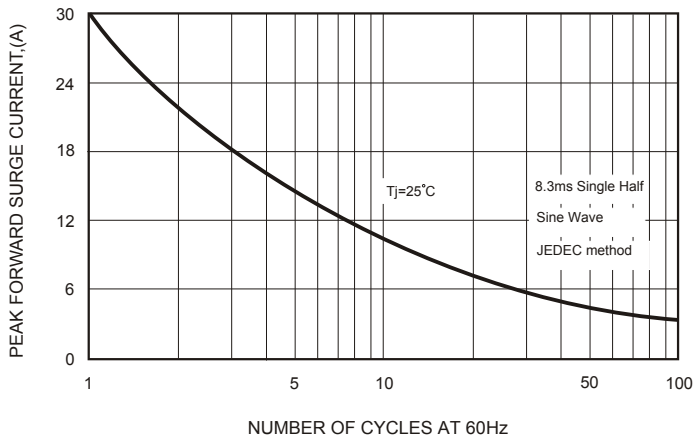


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

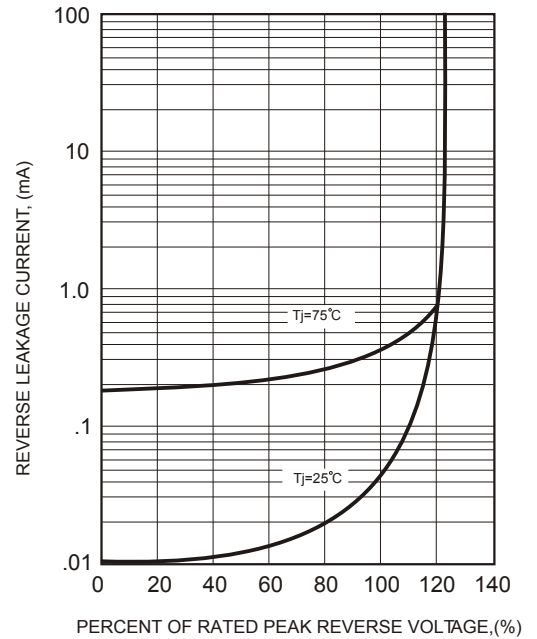


FIG.4-TYPICAL JUNCTION CAPACITANCE

