

1S20 THRU 1S60

FMS

1.0 AMP SCHOTTKY BARRIER RECTIFIERS



FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Epitaxial construction

MECHANICAL DATA

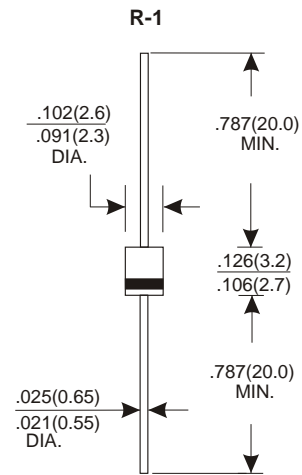
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Axial leads, solderable per MIL-STD-202, method 208 guranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.19 grams

VOLTAGE RANGE

20 to 100 Volts

CURRENT

1.0 Ampere



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unieess otherwies specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| TYPE NUMBER | 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 RqJA (Note 2) | 10 | | | 15 | | °C/W |
| Operating Temperature Range Tj | -65 — +125 | | | -65 — +150 | | °C |
| Storage Temperature Range Tstg | -65 — +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.

RATING AND CHARACTERISTIC CURVES (1S20 THRU 1S60)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

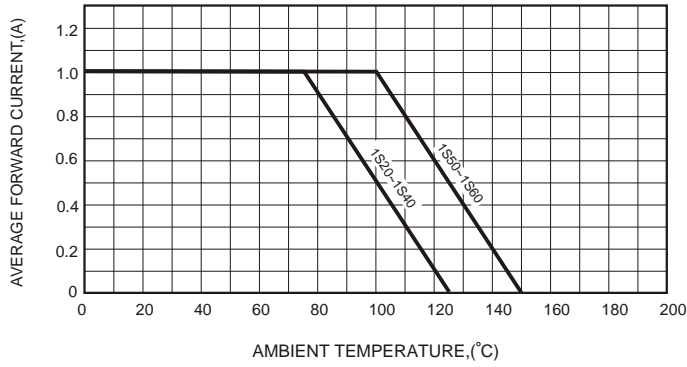


FIG.2-TYPICAL FORWARD CHARACTERISTICS

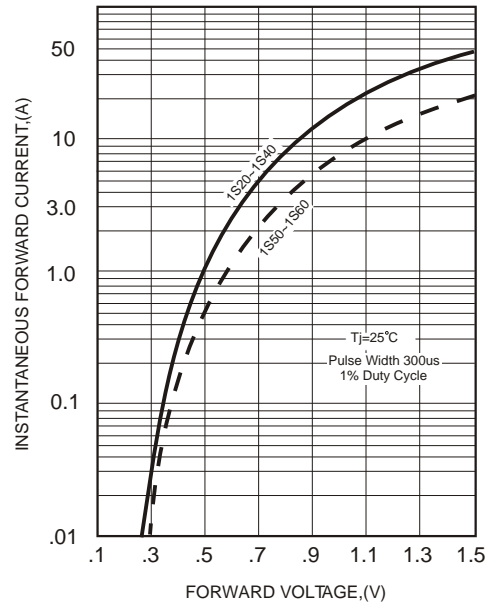


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

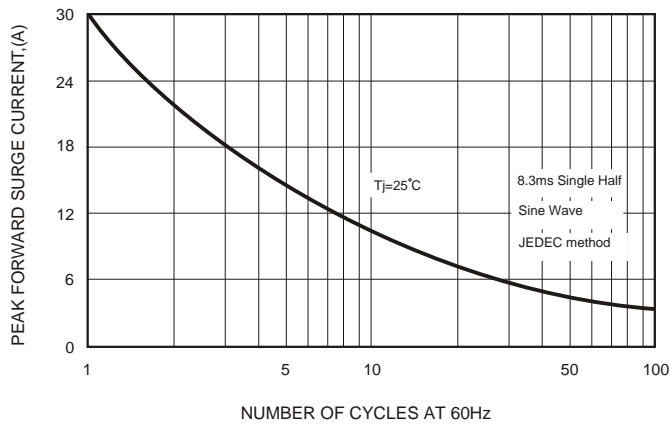


FIG.4-TYPICAL JUNCTION CAPACITANCE

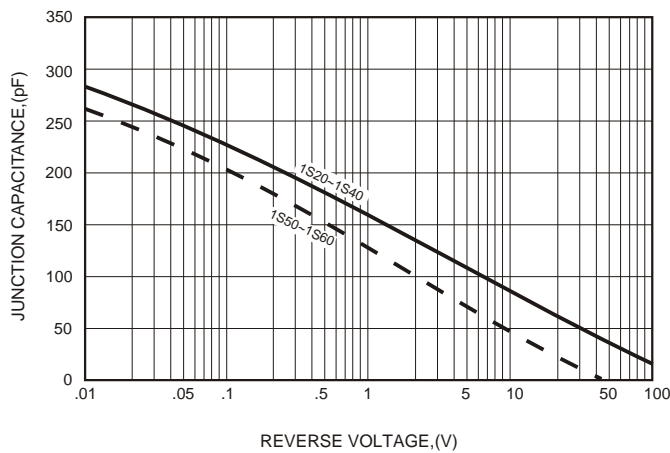


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

