

HIGH VOLTAGE SILICON RECTIFIER

VOLTAGE RANGE 2500 to 5000 Volts CURRENT 0.2 Ampere

FEATURES

- * Low cost
- * Low leakage
- * Low forward voltage drop
- * High current capability

MECHANICAL DATA

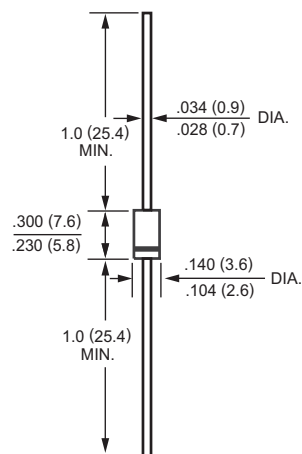
- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.35 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.



DO-15



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

| RATINGS | SYMBOL | R2500 | R3000 | R4000 | R5000 | UNITS |
|--|-----------------------------------|--------------|-------|-------|-------|---------------------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 2500 | 3000 | 4000 | 5000 | Volts |
| Maximum RMS Volts | V _{RMS} | 1750 | 2100 | 2800 | 3500 | Volts |
| Maximum DC Blocking Voltage | V _{DC} | 2500 | 3000 | 4000 | 5000 | Volts |
| Maximum Average Forward Rectified Current at TA = 50°C | I _O | 200 | | | | mAmps |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 30 | | | | Amps |
| Typical Current Squared Time | I ² t | 3.74 | | | | A ² /Sec |
| Typical Thermal Resistance | R _{θJA} | 65 | | | | °C/W |
| | R _{θJL} | 30 | | | | |
| Typical Junction Capacitance (Note) | C _J | 30 | | | | pF |
| Operating and Storage Temperature Range | T _J , T _{STG} | -55 to + 150 | | | | °C |

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

| CHARACTERISTICS | | SYMBOL | R2500 | R3000 | R4000 | R5000 | UNITS |
|--|------------------------|----------------|-------|-------|-------|-------|-------|
| Maximum Instantaneous Forward Voltage at 0.2A DC | | V _F | 3.0 | 4.0 | 5.0 | | Volts |
| Maximum DC Reverse Current | @T _A = 25°C | I _R | 5.0 | | | | uAmps |
| at Rated DC Blocking Voltage | @T _A =100°C | | 50 | | | | |
| Maximum Full Load Reverse Current Average, Full Cycle .375". (9.5mm) lead length at T _L = 75°C | | | 30 | | | | uAmps |

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
 2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
 3. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

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RATING AND CHARACTERISTIC CURVES(R2500 THRU R5000)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

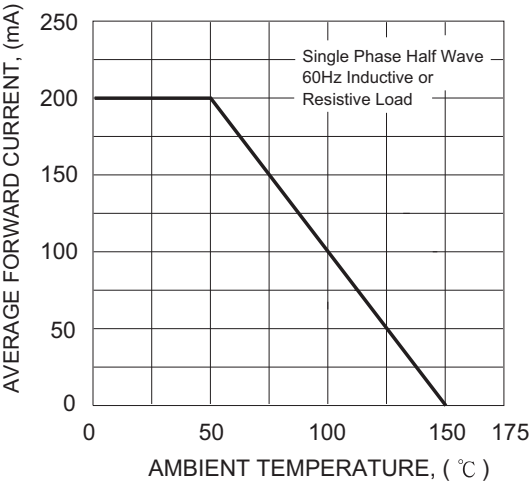


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

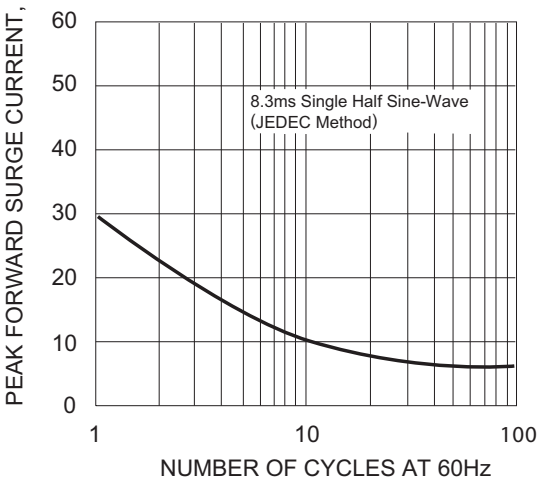
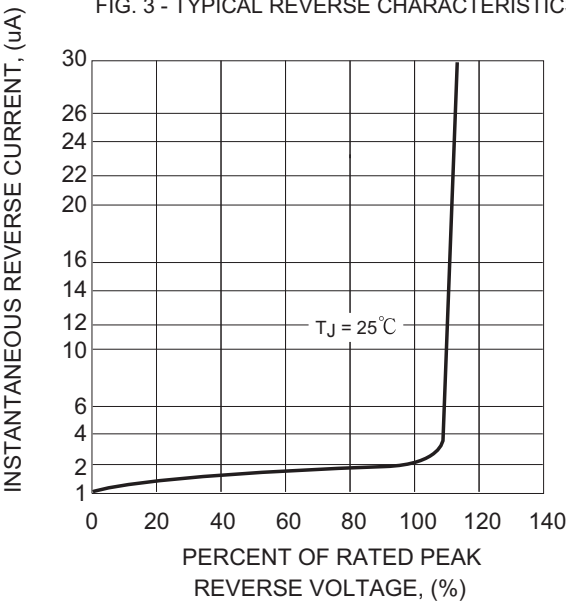
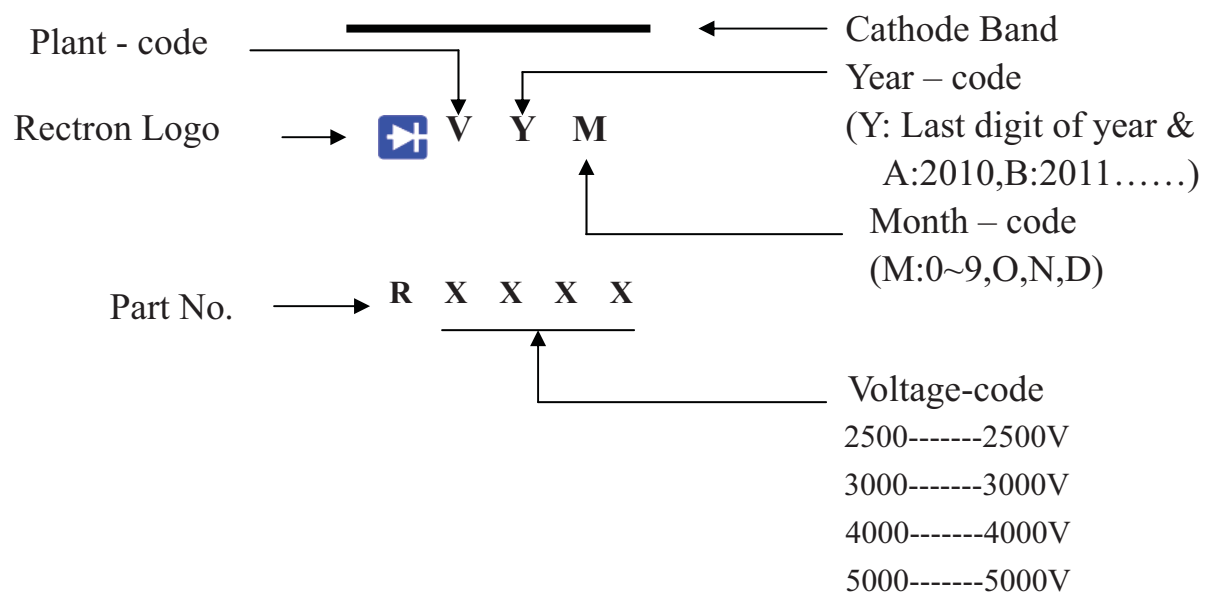


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS



Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

BULK PACK

| PACKAGE | PACKING CODE | EA PER BOX | INNER BOX SIZE (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|--------------|------------|------------------------|---------------------|---------------|---------------------|
| DO-15 | -B | 500 | 194*84*21 | 415*220*255 | 25,000 | 12.74 |

REEL PACK

| PACKAGE | PACKING CODE | EA PER REEL | EA PER INNER BOX | COMPONENT SPACE (mm) | TAPE SPACE (mm) | REEL DIA (mm) | CARTON SIZE (mm) | EA PER CARTON | GROSS WEIGHT(Kg) |
|---------|-----------------|----------------|------------------------|----------------------------|--------------------|------------------|---------------------|------------------|---------------------|
| DO-15 | -T | 4,000 | 4,000 | 5.0 | 52 | 330 | 355*350*335 | 16,000 | 10.05 |

AMMO PACK

| PACKAGE | PACKING CODE | REEL (EA) | COMPONENT SPACE(mm) | TAPE SPACE (mm) | BOX SIZE (mm) | CARTON SIZE(mm) | CARTON (EA) | GROSS WEIGHT (Kg) |
|---------|-----------------|----------------|------------------------|--------------------|------------------|--------------------|------------------|----------------------|
| DO-15 | -F | 1,500 | 5.0 | 52 | 255*73*100 | 400*268*225 | 15,000 | 8.8 |

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