

GLASS PASSIVATED SUPER FAST RECTIFIER

VOLTAGE RANGE 50 to 600 Volts CURRENT 1.0 Ampere

FEATURES

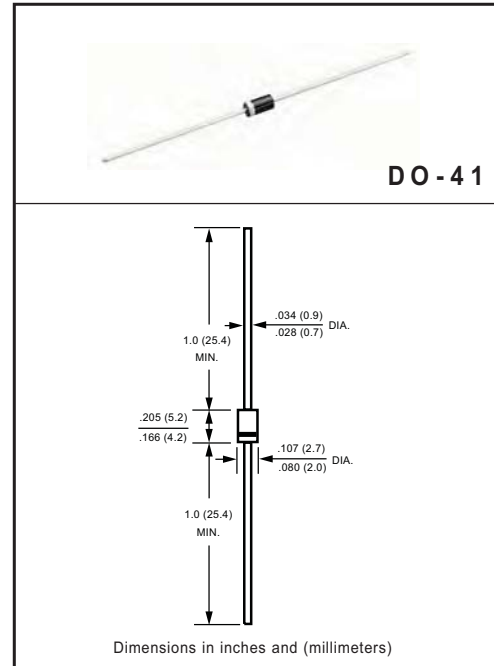
- * High reliability
- * Low leakage
- * Low forward voltage
- * High current capability
- * Super fast switching speed
- * High surge capability
- * Good for switching mode circuit

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: Device has UL flammability classification 94V-O
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.33 g ram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
resistive or inductive load.



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

| RATINGS | SYMBOL | SF11 | SF12 | SF13 | SF14 | SF15 | SF16 | SF17 | UNITS |
|---|------------------|--------------|------|------|------|------|------|------|---------------------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 50 | 100 | 150 | 200 | 300 | 400 | 600 | Volts |
| Maximum RMS Voltage | VRMS | 35 | 70 | 105 | 140 | 210 | 280 | 420 | Volts |
| Maximum DC Blocking Voltage | VDC | 50 | 100 | 150 | 200 | 300 | 400 | 600 | Volts |
| Maximum Average Forward Rectified Current at TA = 55°C | IO | 1.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | IFSM | 30 | | | | | | | Amps |
| Current Squared Time | I ² t | 3.7 | | | | | | | A ² /Sec |
| Typical Thermal Resistance (Note 3) | RθJA | 50 | | | | | | | °C/W |
| | RθJL | 20 | | | | | | | |
| Typical Junction Capacitance (Note 2) | CJ | 15 | | | | 10 | | | pF |
| Operating and Storage Temperature Range | TJ, TSTG | -55 to + 150 | | | | | | | °C |

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

| CHARACTERISTICS | SYMBOL | SF11 | SF12 | SF13 | SF14 | SF15 | SF16 | SF17 | UNITS |
|---|--------|-------------|------|------|------|------|------|------|-------|
| Maximum Instantaneous Forward Voltage at 1.0A DC | VF | 0.95 | | | | 1.30 | | 1.70 | Volts |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | IR | @TA = 25°C | | | | 5.0 | | | uAmps |
| | | @TA = 100°C | | | | 100 | | | |
| Maximum Reverse Recovery Time (Note 1) | trr | 35 | | | | nSec | | | |

- NOTES : 1. Test Conditions: IF = 0.5A, IR = -1.0A, IRR = -0.25A
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
 3. Typical Thermal Resistance : At 9.5mm lead lengths,PCB mounted.
 4. "Fully ROHS compliant", "100% Sn plating (Pb-free)"

RATING AND CHARACTERISTICS CURVES (SF11 THRU SF17)

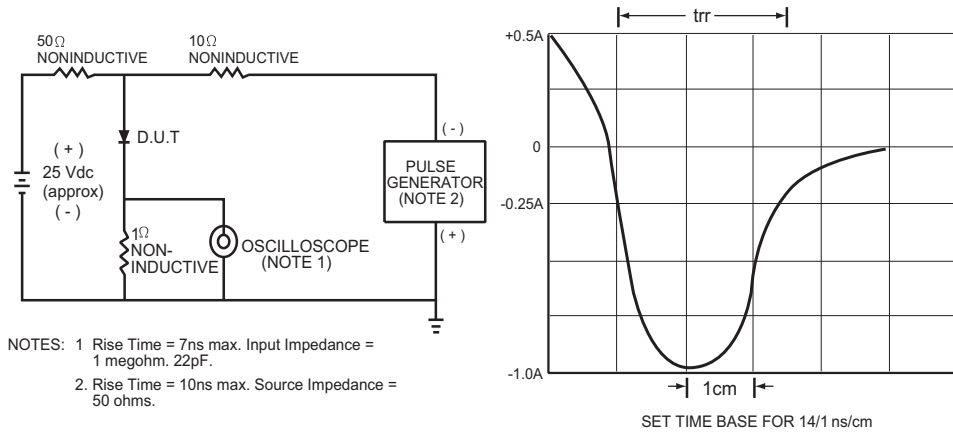


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

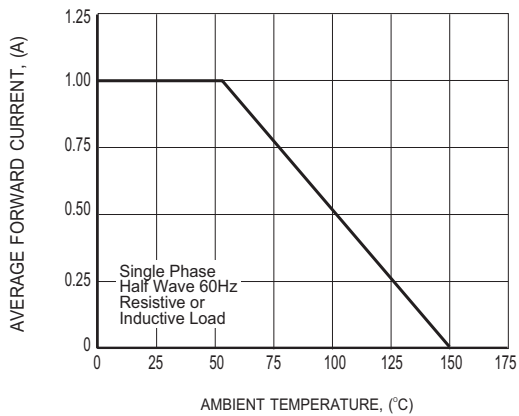


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

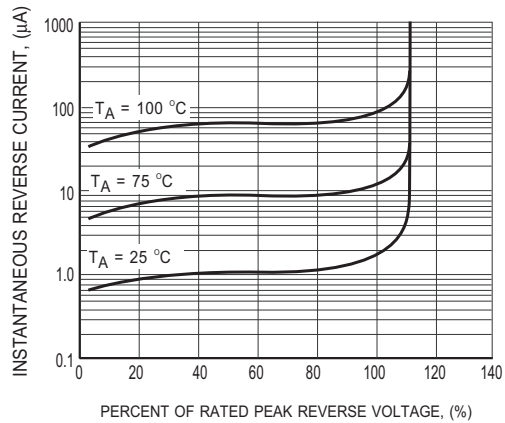


FIG.3 TYPICAL REVERSE CHARACTERISTICS

RATING AND CHARACTERISTICS CURVES (SF11 THRU SF17)

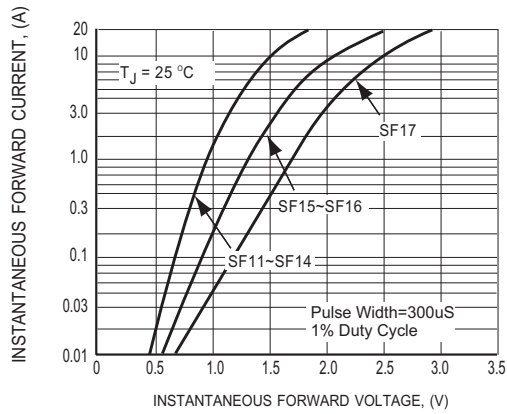


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

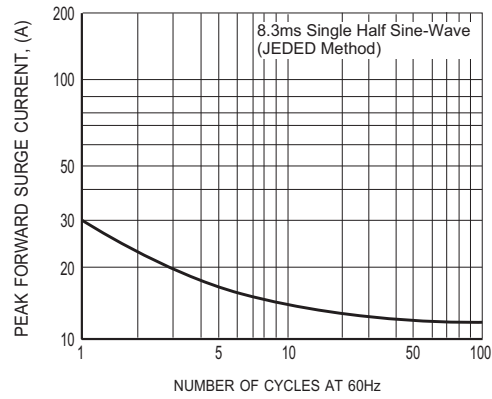


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

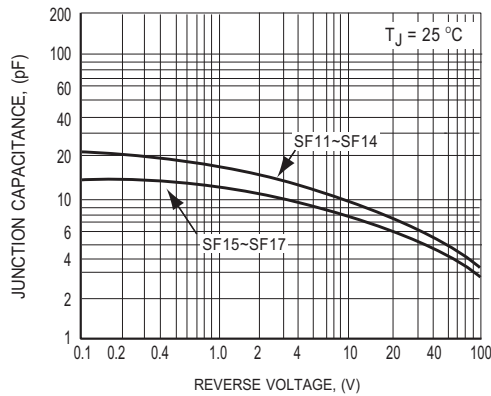
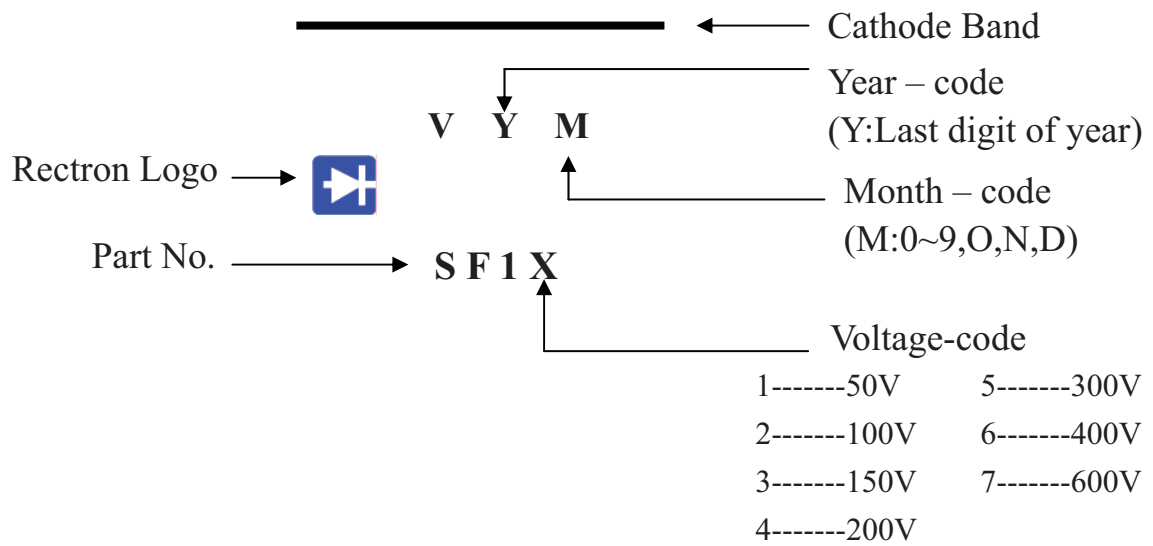


FIG.6 TYPICAL JUNCTION CAPACITANCE

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-41 | -B | 1,000 | 194*75*21 | 415*220*255 | 50,000 | 16.2 |

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-41 | -T | 5,000 | 5,000 | 5.0 | 52 | 330 | 355*350*335 | 20,000 | 10.49 |

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-41 | -F | 3,000 | 5.0 | 52 | 255*73*100 | 400*268*225 | 30,000 | 13.0 |
| DO-41 | -E | 3,000 | 5.0 | 26 | 256*48*94 | 365*270*217 | 42,000 | 12.41 |