



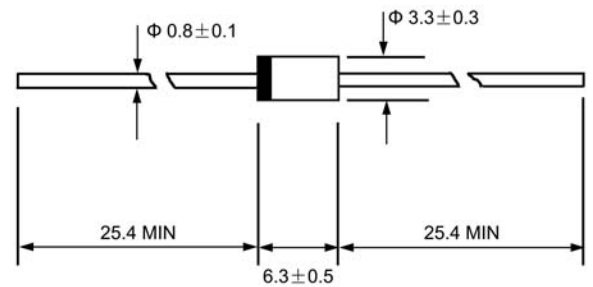
Features

- ◇ Low cost
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with alcohol, Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

Mechanical Data

- ◇ Case: JEDEC DO--15, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.014 ounces, 0.39 grams
- ◇ Mounting position: Any

DO - 15



Dimensions in millimeters

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 by 20%.

| | | RN1Z | UNITS |
|---|-----------------|-----------------|--------------|
| Maximum recurrent peak reverse voltage | V_{RRM} | 200 | V |
| Maximum RMS voltage | V_{RMS} | 140 | |
| Maximum DC blocking voltage | V_{DC} | 200 | |
| Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ C$ | $I_{F(AV)}$ | 1.5 | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$ | I_{FSM} | 60.0 | A |
| Maximum instantaneous forward voltage @ 1.5 A | V_F | 0.92 | V |
| Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$ | I_R | 20.0 1000.0 | μA |
| Maximum reverse recovery time (Note1) | t_{rr} | 50 | ns |
| Typical junction capacitance (Note2) | C_J | 50 | pF |
| Typical thermal resistance (Note3) | $R_{\theta JA}$ | 50 | $^\circ C/W$ |
| Operating junction temperature range | T_J | - 55 ---- + 150 | $^\circ C$ |
| Storage temperature range | T_{STG} | - 55 ---- + 150 | $^\circ C$ |

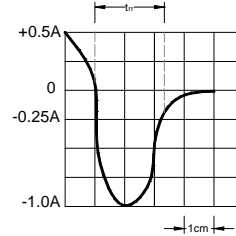
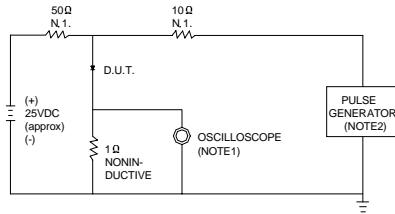
NOTE: 1. Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance from junction to ambient.

Ratings AND Characteristic Curves

FIG.1 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

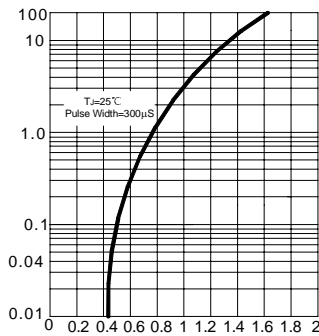


NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE =1M Ω . 22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω .

SET TIME BASE FOR 10/20 ns/cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

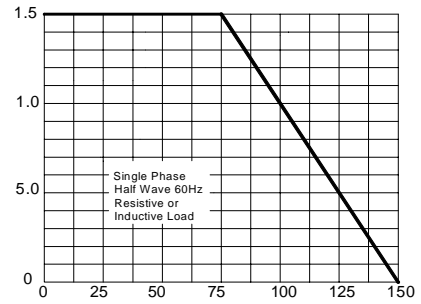
INSTANTANEOUS FORWARD CURRENT
AMPERES



INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.3 –FORWARD DERATING CURVE

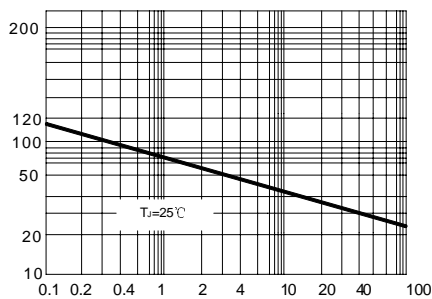
AVERAGE FORWARD RECTIFIED CURRENT
AMPERES



AMBIENT TEMPERATURE, °C

FIG.4 –TYPICAL JUNCTION CAPACITANCE

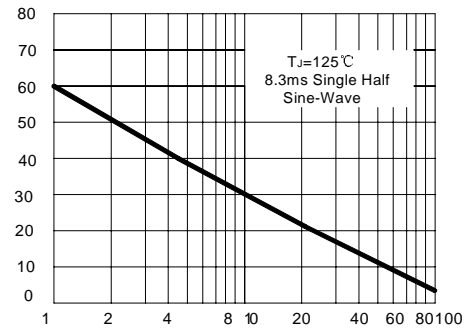
JUNCTION CAPACITANCE,pF



REVERSE VOLTAGE,VOLTS

FIG.5–PEAK FORWARD SURGE CURRENT

PEAK FORWARD SURGE CURRENT
AMPERES



NUMBER OF CYCLES AT 60Hz