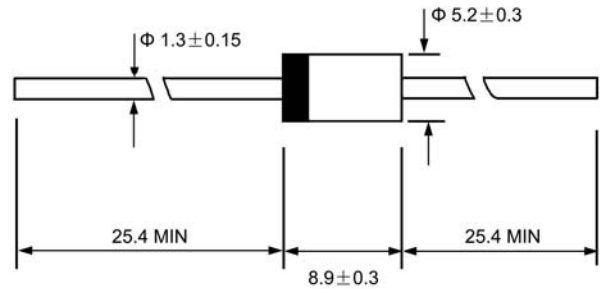



DO - 27


Dimensions in millimeters

Features

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

Mechanical Data

- ◇ Case: JEDEC DO-27, molded plastic
- ◇ Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces, 1.15 grams
- ◇ Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

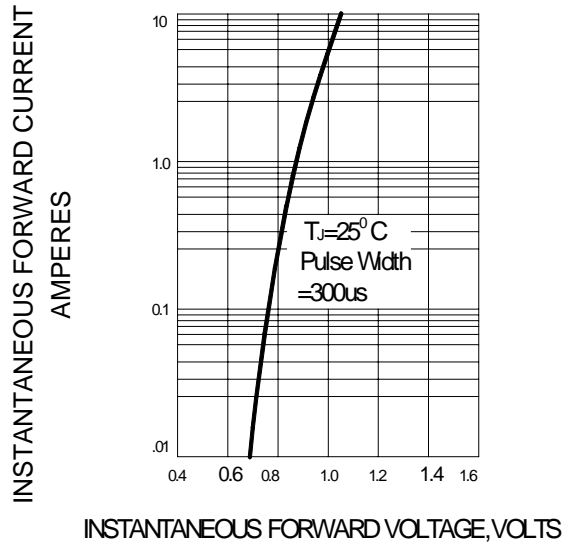
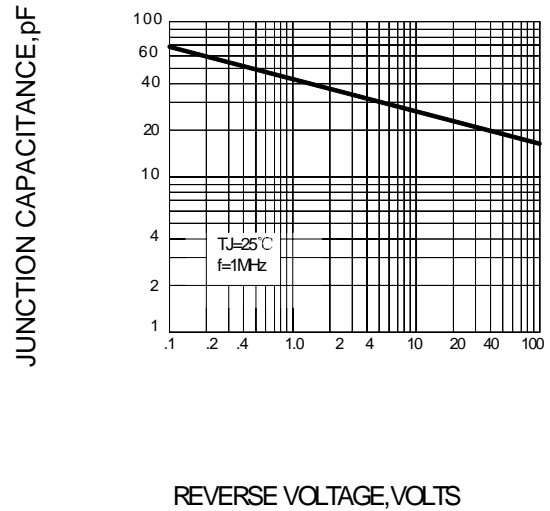
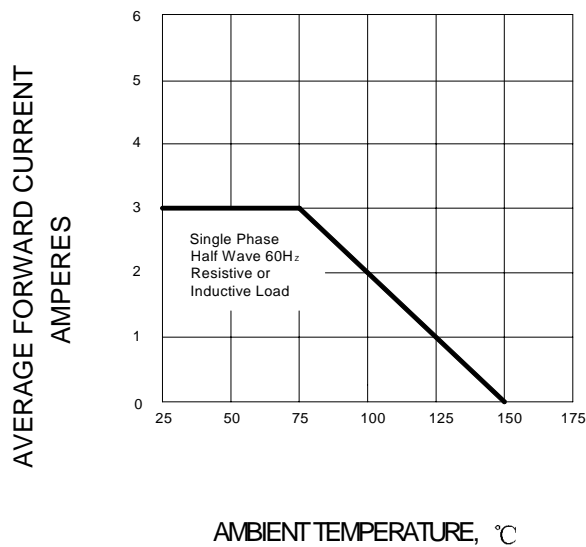
Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

| | | ERD03 -02 | ERD03 -04 | UNITS |
|---|-----------------|--------------|--------------|---------------------------|
| Maximum recurrent peak reverse voltage | V_{RRM} | 200 | 400 | V |
| Maximum RMS voltage | V_{RMS} | 140 | 280 | V |
| Maximum DC blocking voltage | V_{DC} | 200 | 400 | V |
| Maximum average forward rectified current 9.5mm lead length, @ $T_A=75^\circ\text{C}$ | $I_{F(AV)}$ | 3.0 | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$ | I_{FSM} | 200.0 | | A |
| Maximum instantaneous forward voltage @ 3.0 A | V_F | 1.0 | | V |
| Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$ | I_R | 10.0 | 100.0 | μA |
| Typical junction capacitance (Note1) | C_J | 35 | | pF |
| Typical thermal resistance (Note2) | $R_{\theta JA}$ | 20 | | $^\circ\text{C}/\text{W}$ |
| Operating junction temperature range | T_J | -55-----+150 | | $^\circ\text{C}$ |
| Storage temperature range | T_{STG} | -55-----+150 | | $^\circ\text{C}$ |

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient.

Ratings AND Characteristic Curves

FIG.1 – TYPICAL FORWARD CHARACTERISTIC

FIG.2 – TYPICAL JUNCTION CHARACTERISTICS

FIG.3 – FORWARD DERATING CURVE

FIG.4 – PEAK FORWARD SURGE CURRENT
