

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 200 --- 1000V
CURRENT: 1.0 A

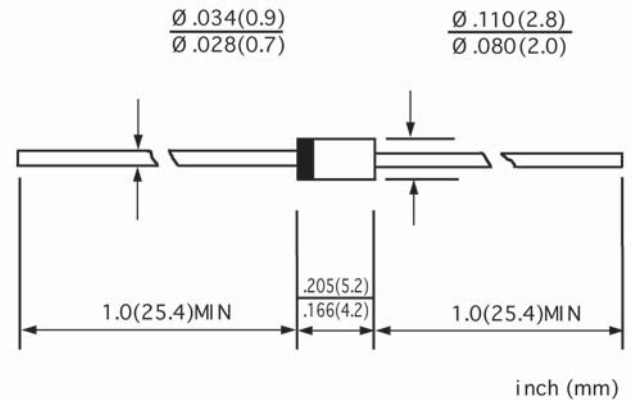
FEATURES

- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with alcohol, Isopropanol and similar solvents

MECHANICAL DATA

- Case: JEDEC DO-41, molded plastic
- Terminals: Axial lead, solderable per MIL-STD-202, Method 208
- Polarity: Color band denotes cathode
- Weight: 0.012 ounces, 0.34 grams
- Mounting position: Any

DO - 41



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 50 Hz, resistive or inductive load. For capacitive load, derate by 20%.

| | | BYV26A | BYV26B | BYV26C | BYV26D | BYV26E | UNITS |
|--|-----------------|------------------|--------|--------|--------|--------|--------------------|
| Maximum recurrent peak reverse voltage | V_{RRM} | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | V_{RMS} | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC blocking voltage | V_{DC} | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum average forward rectified current 9.5 mm lead length, @ $T_A=75^\circ\text{C}$ | $I_{F(AV)}$ | 1.0 | | | | | A |
| Peak forward surge current 10ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$ | I_{FSM} | 30.0 | | | | | A |
| Maximum instantaneous forward voltage @ 1.0A | V_F | 2.5 | | | | | V |
| Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$ | I_R | 5.0 150.0 | | | | | μA |
| Maximum reverse recovery time (Note1) | t_{rr} | 30 | | | 75 | | ns |
| Typical junction capacitance (Note2) | C_J | 45 | | | 40 | | pF |
| Typical thermal resistance (Note3) | $R_{\theta JA}$ | 100 | | | | | $^\circ\text{C/W}$ |
| Operating junction temperature range | T_J | - 55 ----- + 150 | | | | | $^\circ\text{C}$ |
| Storage temperature range | T_{STG} | - 55 ----- + 150 | | | | | $^\circ\text{C}$ |

NOTE: 1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_r=0.25\text{A}$.

2. Measured at 1MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance from junction to ambient.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 – FORWARD DERATING CURVE

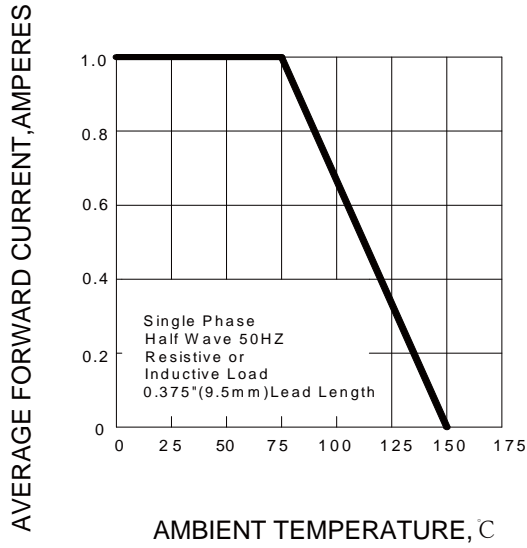


FIG.2 – TYPICAL FORWARD CHARACTERISTIC

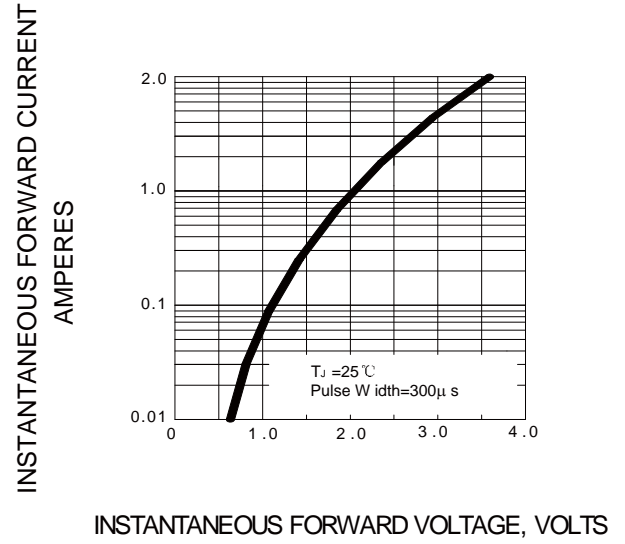


FIG.3 – PEAK FORWARD SURGE CURRENT

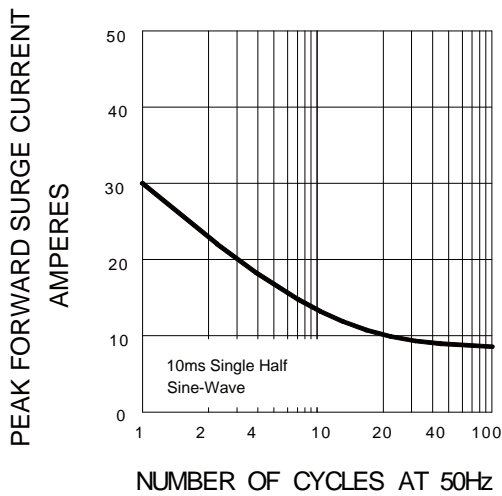


FIG.4 – TYPICAL JUNCTION CAPACITANCE

