

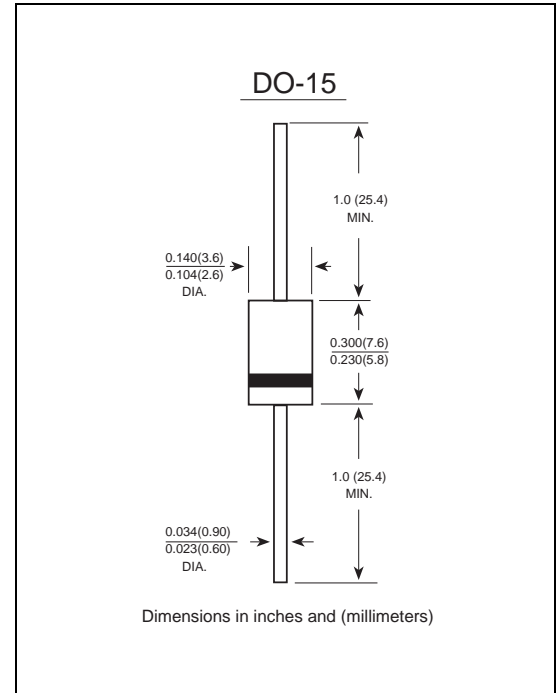
BY296~BY299 2.0Amp Fast Recovery Rectifiers

Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Fast switching for high efficiency
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

Mechanical Data

Case: JEDEC DO-15 molded plastic body
 Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
 Polarity: Color band denotes cathode end
 Mounting Position: Any
 Weight : 0.014 ounce, 0.40 grams



Maximum Ratings And Electrical Characteristics

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

| | SYMBOLS | BY296 | BY297 | BY298 | BY299 | UNITS |
|---|-----------------|--------------|-------|-------|-------|--------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 100 | 200 | 400 | 800 | VOLTS |
| Maximum RMS voltage | V_{RMS} | 70 | 140 | 280 | 560 | VOLTS |
| Maximum DC blocking voltage | V_{DC} | 100 | 200 | 400 | 800 | VOLTS |
| Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=75^\circ\text{C}$ | $I_{(AV)}$ | 2.0 | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 70.0 | | | | Amps |
| Maximum instantaneous forward voltage at 2.0A | V_F | 1.3 | | | | Volts |
| Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=100^\circ\text{C}$ | I_R | 5.0 100.0 | | | | μA |
| Maximum reverse recovery time (NOTE 1) | t_{rr} | 500 | | | | ns |
| Typical junction capacitance (NOTE 2) | C_J | 40.0 | | | | pF |
| Typical thermal resistance (NOTE 3) | $R_{\theta JA}$ | 40.0 | | | | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range | T_J, T_{STG} | -65 to +150 | | | | $^\circ\text{C}$ |

Note:1.Reverse recovery condition $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$

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

3.Thermal resistance from junction to ambient at 0.375" (9.5mm)lead length,P.C.B. mounted