

BYW32 - BYW36

PRV : 200 - 600Volts
Io : 2.0 Amperes

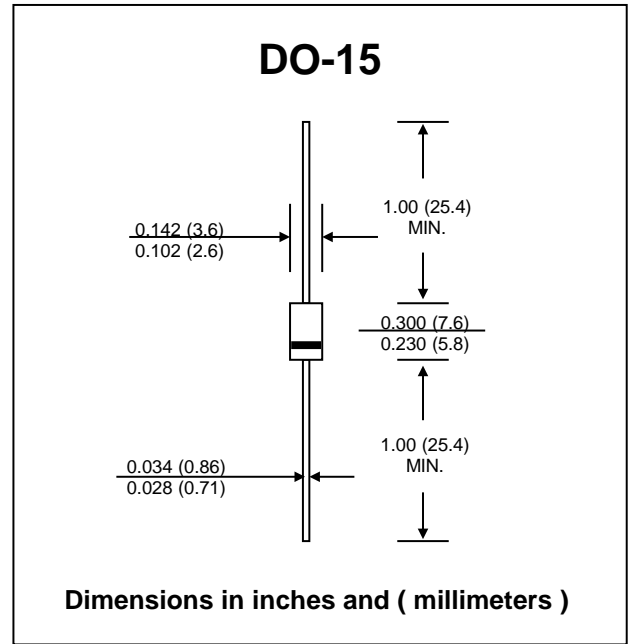
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : DO-15 Molded plastic
- * Epoxy : UL94V-0 rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.4 gram

FAST RECOVERY RECTIFIER DIODES



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

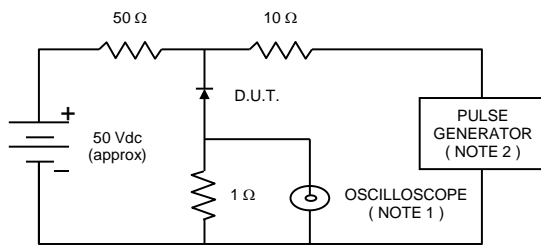
| RATING | SYMBOL | BYW32 | BYW33 | BYW34 | BYW35 | BYW36 | UNIT |
|---|--------------------|---------------|-------|-------|-------|-------|------|
| Maximum Repetitive Peak Reverse Voltage | V _{RRM} | 200 | 300 | 400 | 500 | 600 | V |
| Maximum Maximum RMS voltage | V _{RMS} | 140 | 210 | 280 | 350 | 420 | V |
| Maximum DC blocking voltage | V _{DC} | 200 | 300 | 400 | 500 | 600 | V |
| Maximum Average Forward Current 0.375" (9.5mm) Lead Length at Ta=55°C | I _{F(AV)} | 2.0 | | | | | A |
| Maximum Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load | I _{FSM} | 40 | | | | | A |
| Maximum Instantaneous Forward Voltage at 2.0A | V _F | 1.2 | | | | | V |
| Maximum DC reverse current at rated DC blocking voltage | I _R | 5.0 | | | | | μA |
| Typical Reverse Recovery Time (1) | T _{rr} | 200 | | | | | ns |
| Thermal Resistance - Junction to Ambient (2) | RθJA | 100 | | | | | C/W |
| Junction Temperature Range | T _J | - 65 to + 175 | | | | | °C |
| Storage Temperature Range | T _{STG} | - 65 to + 200 | | | | | °C |

Notes :

- (1) Test Conditions : I_F = 0.5 A to I_R = 1 A ; measured at I_{rr} = 0.25 A
- (2) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

RATING AND CHARACTERISTIC CURVES (BYW32 - BYW36)

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



NOTES :

1. Rise Time = 7 ns max., Input Impedance = 1 megaohm, 22 pF.
2. Rise time = 10 ns max., Source Impedance = 50 ohms.
3. All Resistors = Non-inductive Types.

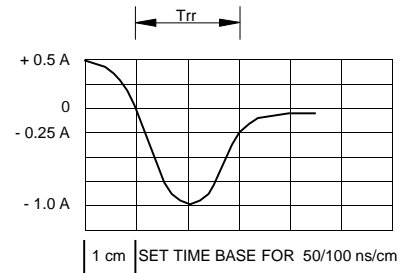


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

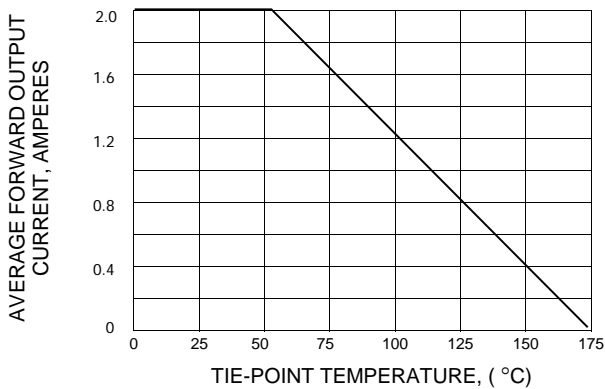


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

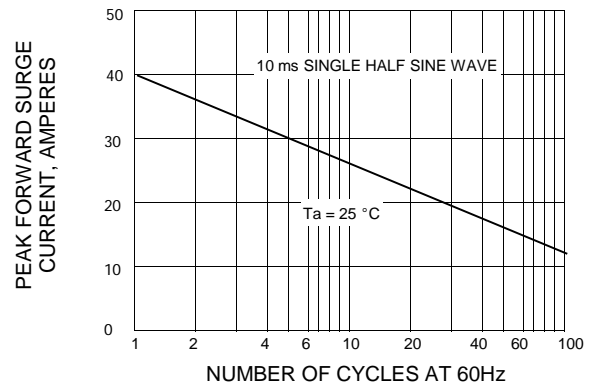


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

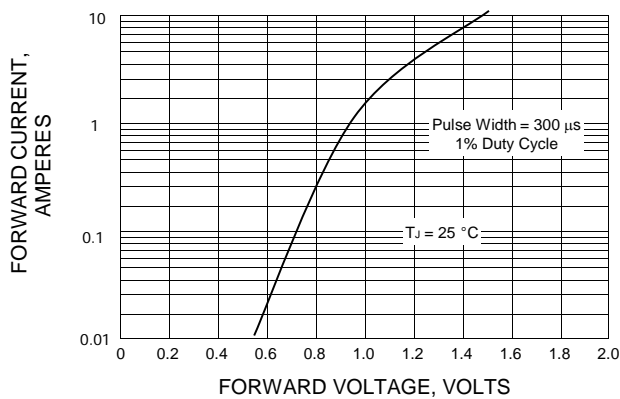


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

