

GR16G-2

HIGH VOLTAGE FAST RECOVERY RECTIFIERS

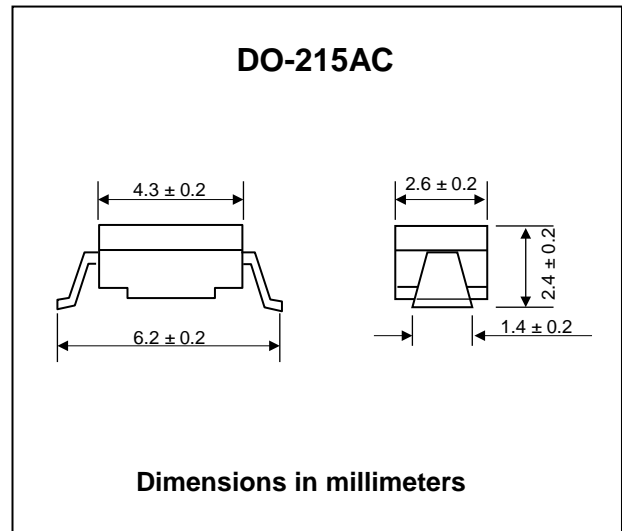
PRV : 1600 Volts
Io : 0.5 Ampere

FEATURES :

- * Glass passivated junction chip
- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Fast switching for high efficiency
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : DO-215AC Molded plastic
- * Epoxy : UL94V-0 rate flame retardant
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.060 gram (Approximately)



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%.

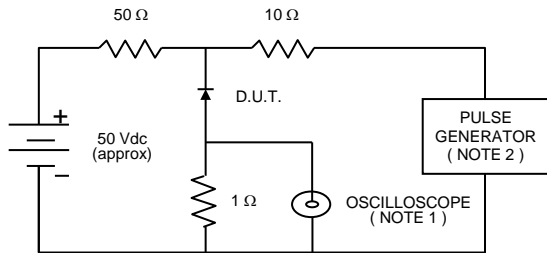
| RATING | SYMBOL | GR16G-2 | UNIT |
|---|-------------|---------------|---------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 1600 | V |
| Maximum RMS Voltage | V_{RMS} | 1120 | V |
| Maximum DC Blocking Voltage | V_{DC} | 1600 | V |
| Maximum Average Forward Current | $I_{F(AV)}$ | 0.5 | A |
| Maximum Peak Forward Surge Current, 8.3ms Single half sine wave superimposed on rated load (JEDEC Method) | I_{FSM} | 20 | A |
| Maximum Forward Voltage at $I_F = 0.1$ A | V_F | 2.0 | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | 5.0 | μA |
| | $I_{R(H)}$ | 50 | μA |
| Maximum Reverse Recovery Time (Note 1) | T_{rr} | 300 | ns |
| Typical Junction Capacitance (Note 2) | C_J | 5 | pF |
| Junction Temperature Range | T_J | - 65 to + 150 | °C |
| Storage Temperature Range | T_{STG} | - 65 to + 150 | °C |

Notes :

- (1) Reverse Recovery Test Conditions : $I_F = 0.5$ A, $I_R = 1.0$ A, $I_{rr} = 0.25$ A.
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc
- (3) Marking code "16G2" on diode

RATING AND CHARACTERISTIC CURVES (GR16G-2)

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.

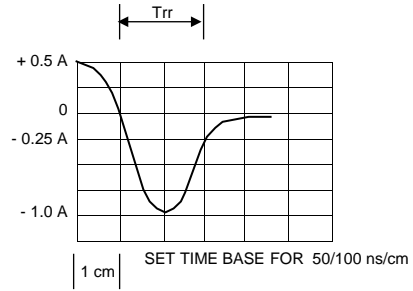


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

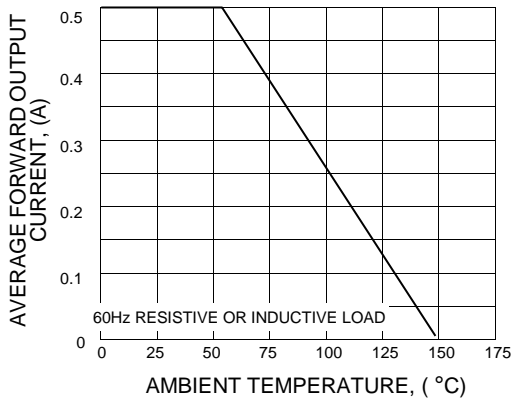


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

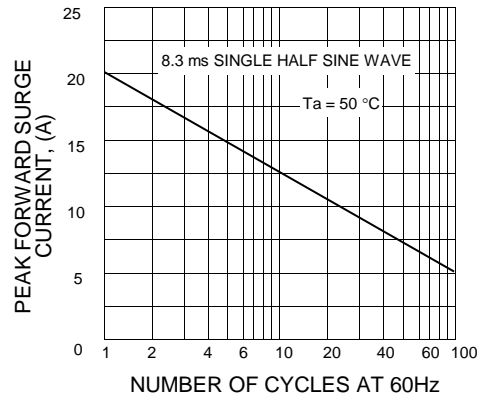


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

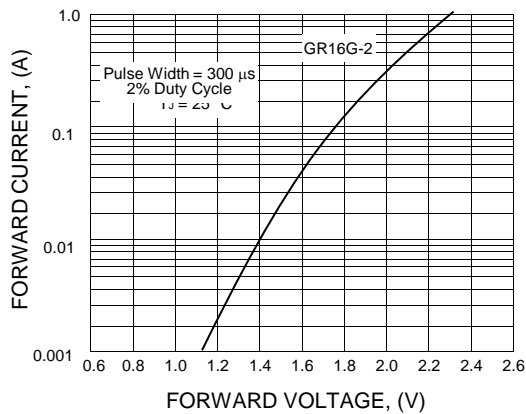


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

