## GLASS PASSIVATED RECTIFIERS

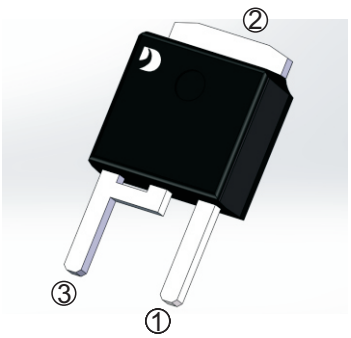
**Reverse Voltage - 100 to 1000 V**

**Forward Current - 6.0 A**

### FEATURES

- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed
- Mounting position: any

**TO-251AC**




RoHS COMPLIANT


MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified

| CHARACTERISTICS | Symbols | G601V | G602V | G604V | G606V | G608V | G610V | Units |
|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS voltage | $V_{RMS}$ | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current | $I_{F(AV)}$ | 6.0 | | | | | | A |
| Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | $I_{FSM}$ | 160 | | | | | | A |
| Max Instantaneous Forward Voltage at 6A DC | $V_F$ | 1.1 | | | | | | V |
| Maximum DC Reverse Current $T_a$ = 25°C<br>at Rated DC Reverse Voltage $T_a$ =125°C | $I_R$ | 5<br>500 | | | | | | uA |
| Typical Junction Capacitance (1) | $C_j$ | 60 | | | | | | pF |
| Typical Thermal Resistance (2) | $R_{\theta JA}$ | 50 | | | | | | °C/W |
| Operating Junction Temperature Range | $T_j$ | -55 ~ +150 | | | | | | °C |
| Storage Temperature Range | $T_{stg}$ | -55 ~ +150 | | | | | | °C |

( 1 ) Measured at 1 MHz and applied reverse voltage of 4 V D.C

( 2 ) P.C.B. mounted with 10cmX10cmX1mm copper pad areas.

**Fig.1 Forward Current Derating Curve**

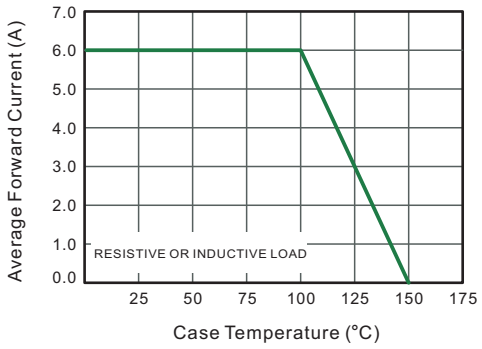



**Fig.2 Typical Instaneous Reverse Characteristics**

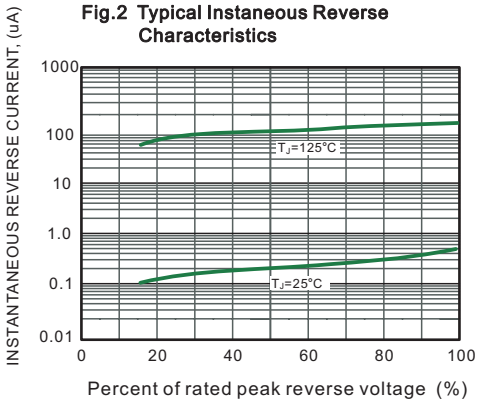



**Fig.3 Typical Forward Characteristic**

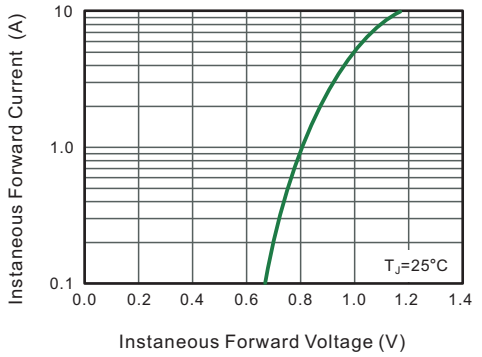



**Fig.4 Typical Junction Capacitance**

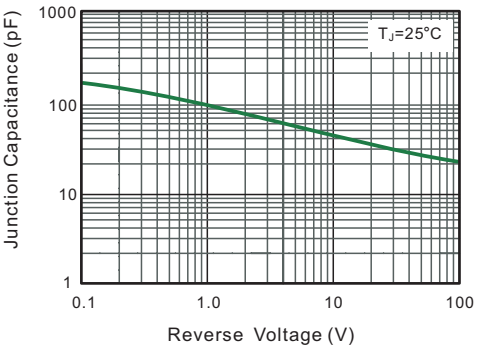



**Fig.5 Maximum Non-Repetitive Peak Forward Surage Current**

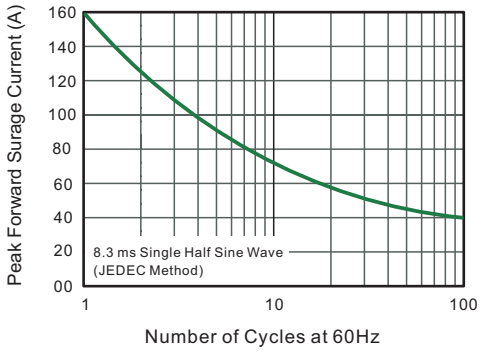
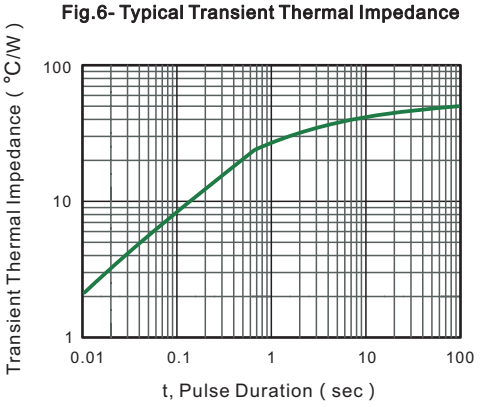
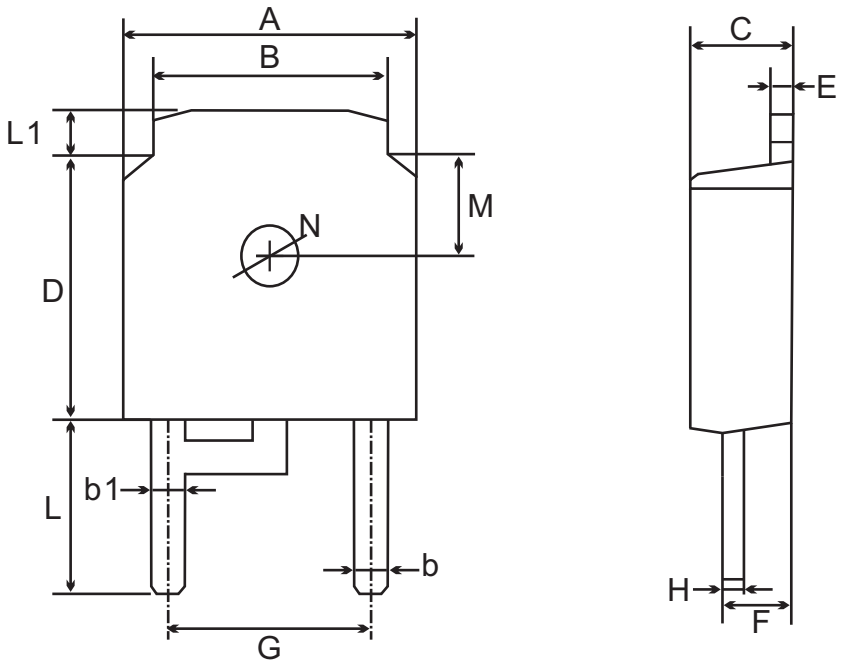



**Fig.6- Typical Transient Thermal Impedance**



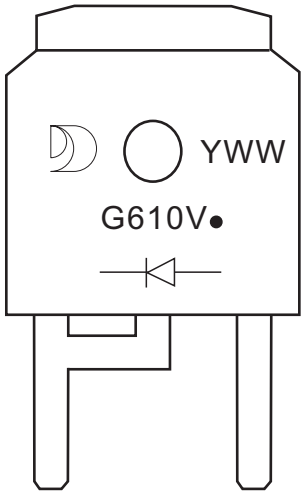
## TO-251AC Package Outline Dimensions




TO-251AC mechanical data

| UNIT | | A | B | b | b1 | C | D | E | F | G | H | L | L1 | M | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| mm | max | 6.7 | 5.5 | 0.8 | 0.9 | 2.5 | 6.3 | 0.6 | 1.8 | 4.60 TYPICAL | 0.55 | 4.3 | 1.2 | 1.8 TYPICAL | 1.3 TYPICAL |
| | min | 6.3 | 5.1 | 0.3 | 0.76 | 2.1 | 5.9 | 0.4 | 1.3 | | 0.45 | 3.9 | 0.8 | | |
| mil | max | 264 | 217 | 31 | 35 | 98 | 248 | 24 | 71 | 181 TYPICAL | 22 | 169 | 47 | 71 TYPICAL | 51 TYPICAL |
| | min | 248 | 201 | 12 | 30 | 83 | 232 | 16 | 51 | | 18 | 154 | 31 | | |

### MARKING DIAGRAM




YWW: Date Code
Y:Years(0~9)
WW:Week
G610V: Product name
(NOTE:The weekly code is based on the actual number of weeks in the calendar year.)

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