



GLASS PASSIVATED RECTIFIERS

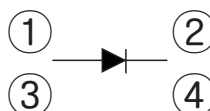
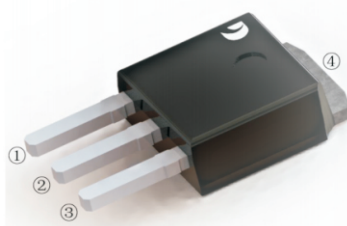
Reverse Voltage - 100 to 1000 V

Forward Current - 8.0 A

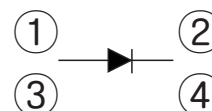
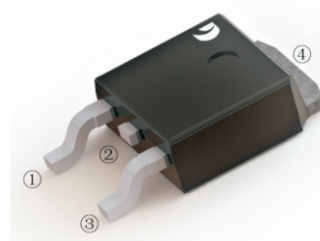
FEATURES

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

TO-251(I-PAK)



TO-252(D-PAK)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| CHARACTERISTICS | TO-251 | G801VS | G802VS | G804VS | G806VS | G808VS | G810VS | Units |
|---|-----------------|------------|--------|--------|--------|--------|--------|---------------------------|
| | TO-252 | G801DS | G802DS | G804DS | G806DS | G808DS | G810DS | |
| 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 | $I_{F(AV)}$ | 8.0 | | | | | | 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 8 A DC | V_F | 1.1 | | | | | | V |
| Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 125^\circ\text{C}$ | I_R | 5 500 | | | | | | μA |
| Typical Junction Capacitance ⁽¹⁾ | C_j | 50 | | | | | | pF |
| Typical Thermal Resistance ⁽²⁾ | $R_{\theta JC}$ | 25 | | | | | | $^\circ\text{C}/\text{W}$ |
| Operating Junction Temperature Range | T_j | -55 ~ +150 | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{stg} | -55 ~ +150 | | | | | | $^\circ\text{C}$ |

(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

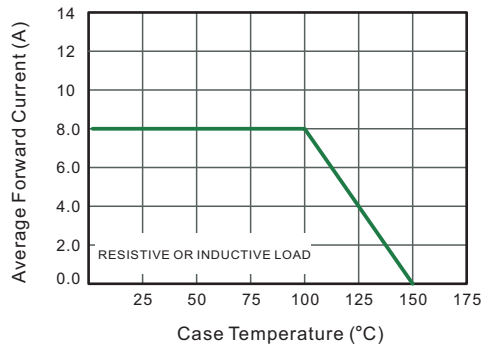


Fig.2 Typical Instantaneous Reverse Characteristics

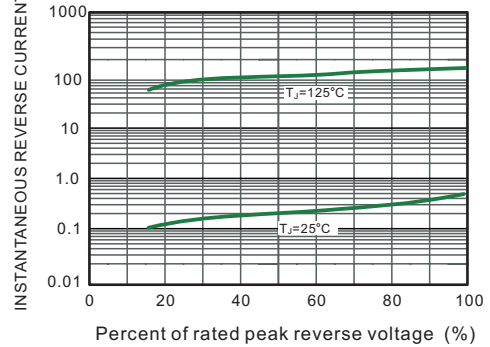


Fig.3 Typical Forward Characteristic

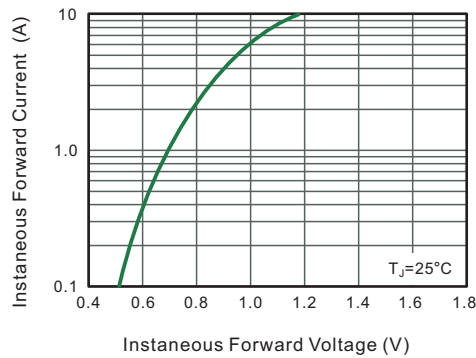


Fig.4 Typical Junction Capacitance

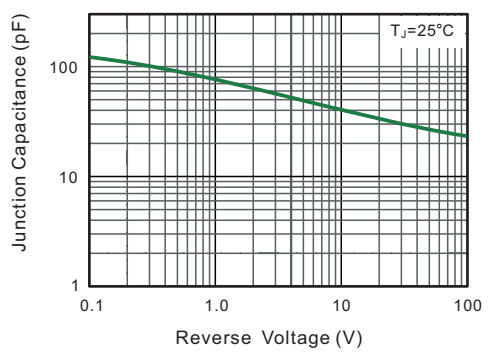


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

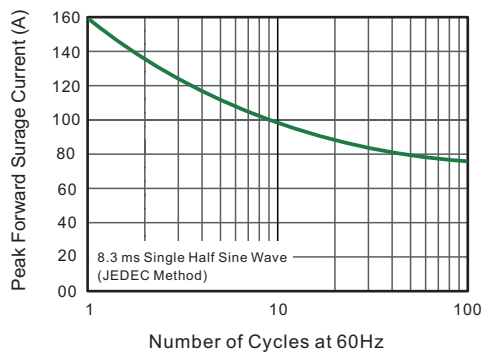
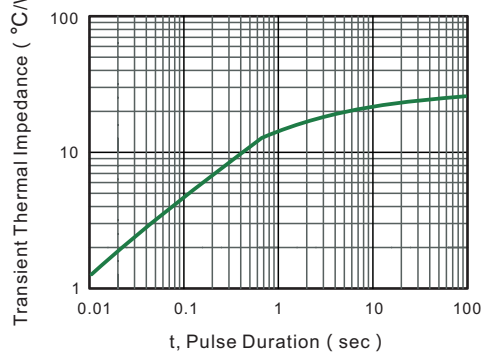
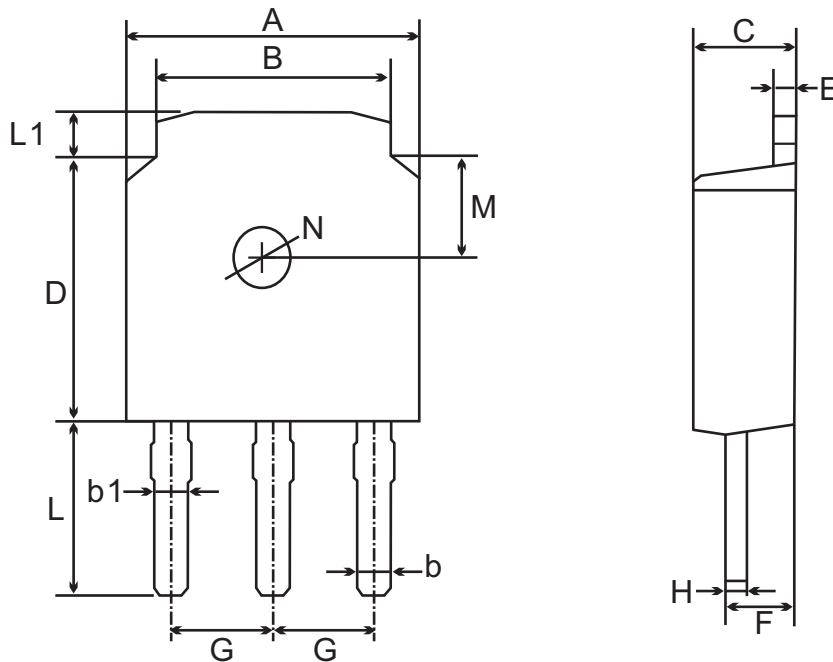


Fig.6- Typical Transient Thermal Impedance





TO-251(I-PAK) Package Outline Dimensions



TO-251(I-PAK) 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 | 2.29 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 | 90 TYPICAL | 22 | 169 | 47 | 71 TYPICAL | 51 TYPICAL |
| | min | 248 | 201 | 12 | 30 | 83 | 232 | 16 | 51 | | 18 | 154 | 31 | | |

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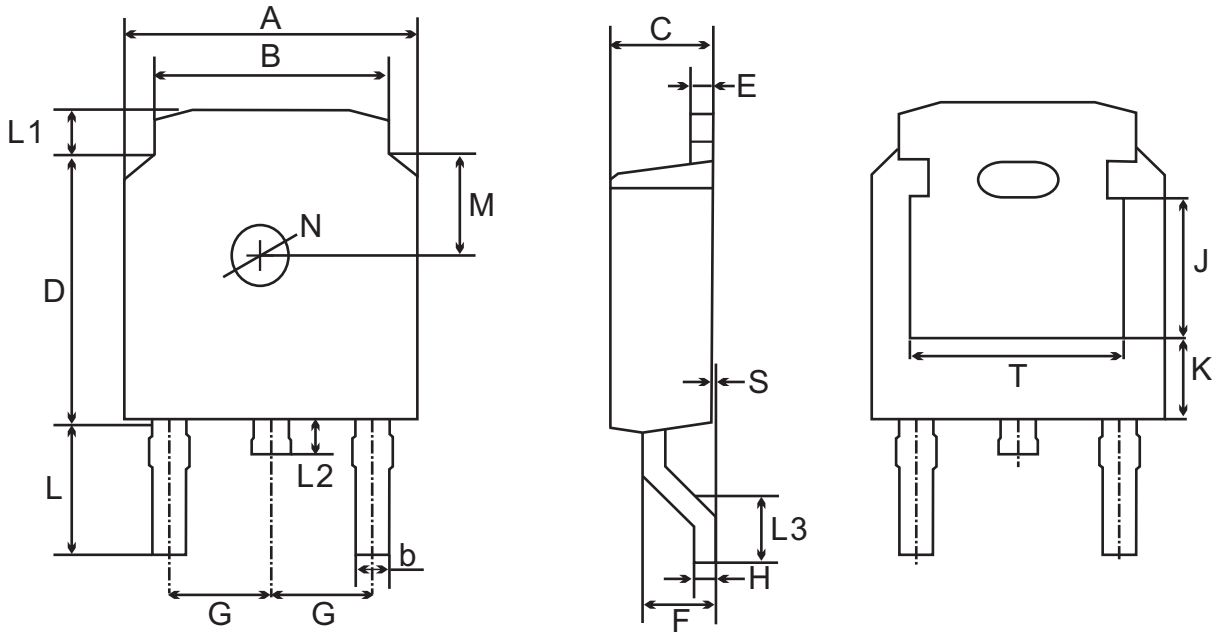
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TO-252(D-PAK) Package Outline Dimensions



TO-252(D-PAK) mechanical data

| UNIT | | A | B | b | C | D | E | F | G | H | L | L1 | L2 | L3 | S | M | N | J | K | T |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----------------|------|-----|-----|-----|------|-----|----------------|----------------|------|------|------|
| mm | max | 6.7 | 5.5 | 0.8 | 2.5 | 6.3 | 0.6 | 1.8 | 2.29 TYPICAL | 0.55 | 3.1 | 1.2 | 1.0 | 1.75 | 0.1 | 1.8 TYPICAL | 1.3 TYPICAL | 3.16 | 1.80 | 4.83 |
| | min | 6.3 | 5.1 | 0.3 | 2.1 | 5.9 | 0.4 | 1.3 | | 0.45 | 2.7 | 0.8 | 0.6 | 1.40 | 0.0 | | | ref. | ref. | ref. |
| mil | max | 264 | 217 | 31 | 98 | 248 | 24 | 71 | 90 TYPICAL | 22 | 122 | 47 | 39 | 69 | 4 | 71 TYPICAL | 51 TYPICAL | 124 | 71 | 190 |
| | min | 248 | 201 | 12 | 83 | 232 | 16 | 51 | | 18 | 106 | 31 | 24 | 55 | 0 | | | ref. | ref. | ref. |

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