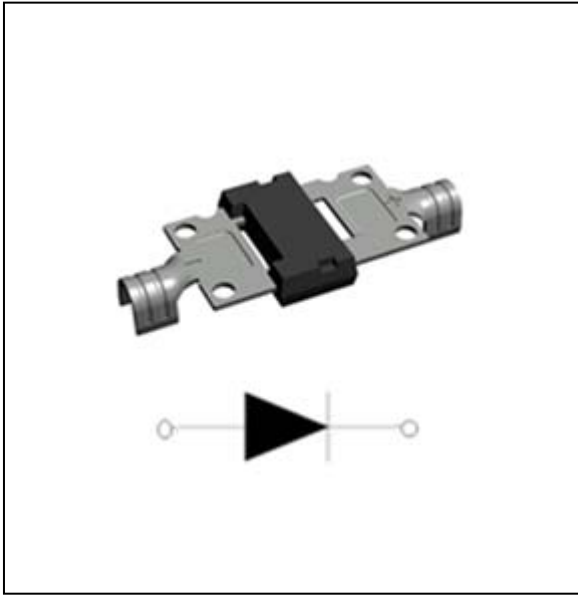




GFMK4045

Schottky Bypass Diode Module



Features

- High frequency operation
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

Typical Applications

Photovoltaic solar cell protection schottky rectifier

Mechanical Data

Package: GF025

Molding compound meets UL 94 V-0 flammability rating,

Terminals: Tin plated leads, solderable per J-STD-002 and JESD 22-B102

Polarity: As marked

Maximum Ratings ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | GFMK4045 |
|---|--------|----------------------|-----------|
| Device marking code | | | GFMK4045 |
| Repetitive Peak Reverse Voltage | VRRM | V | 45 |
| Average Rectified Output Current @60Hz sine wave, R-load, $T_a=25$ | IO | A | 40 |
| Surge(Non-repetitive)Forward Current @60Hz sine wave, 1 cycle, $T_j=25$ | IFSM | A | 400 |
| Current Squared Time @1ms $t < 8.3\text{ms}$ $T_j=25$, Rating of per diode | I^2t | A^2S | 660 |
| Storage Temperature | Tstg | | -55 ~+150 |
| Junction Temperature IN DC Forward Mode-Forward Operations, without reverse bias, t 1 h (Fig. 1) (1) | T_j | | -55 ~+200 |

Note

(1) Meets the requirements of IEC 61215 Ed. 2 bypass diode thermal test.

Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | GFMK4045 |
|---|--------|------|-------------------------------|----------|
| Maximum instantaneous forward voltage drop per diode | VF | V | $I_{FM}=40\text{A}$ | 0.52 |
| Maximum DC reverse current at rated DC blocking voltage per diode | IRRM1 | mA | $V_{RM}=V_{RRM}$ $T_a=25$ | 0.1 |
| | IRRM2 | mA | $V_{RM}=V_{RRM}$ $T_a=100$ | 12 |
| | IRRM3 | mA | $V_{RM}=V_{RRM}$ $T_a=125$ | 55 |



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Thermal Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | GFMK4045 |
|------------------------|--------|------|----------|
| Thermal Resistance (1) | R J-C | /W | 1.5 |

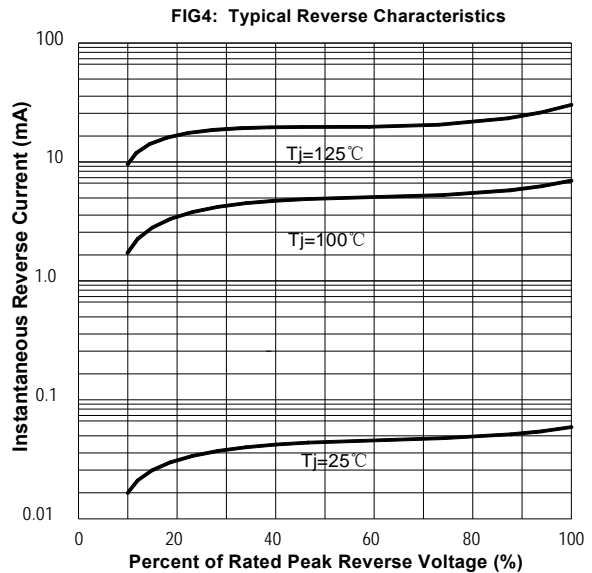
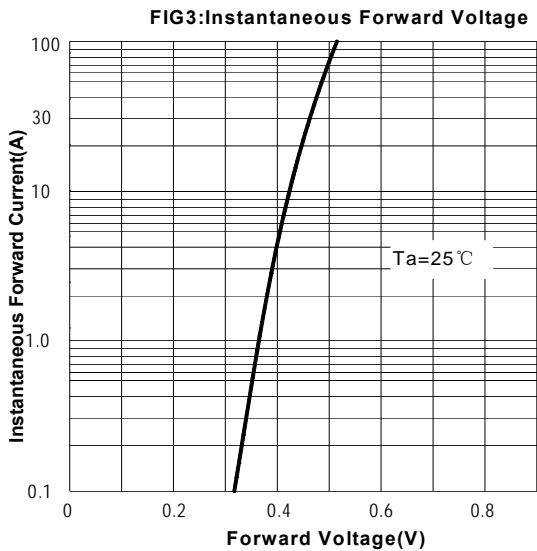
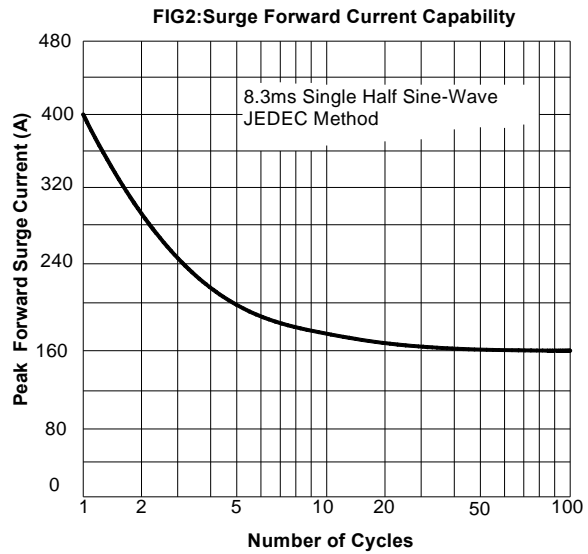
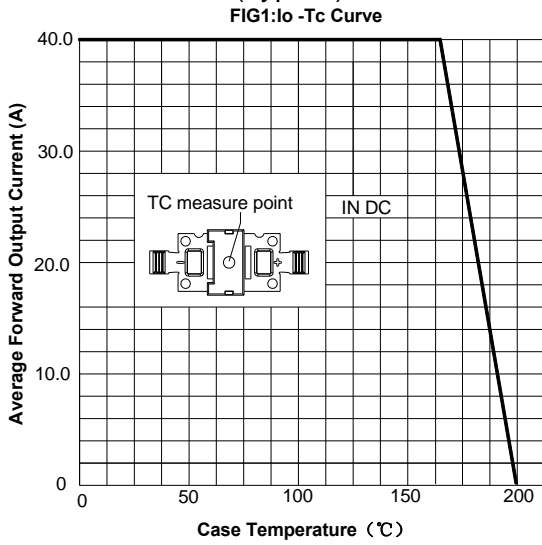
Note

(1) Thermal resistance from Between junction and case, On glass-epoxi substrate.

Ordering Information (Example)

| PREFERRED P/N | UNIT WEIGHT(g) | MINIIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|-----------------|-----------------------|-------------------------|----------------------------|---------------|
| GFMK4045 | Approximate 4.0 | 30 | 600 | 2400 | Tube |

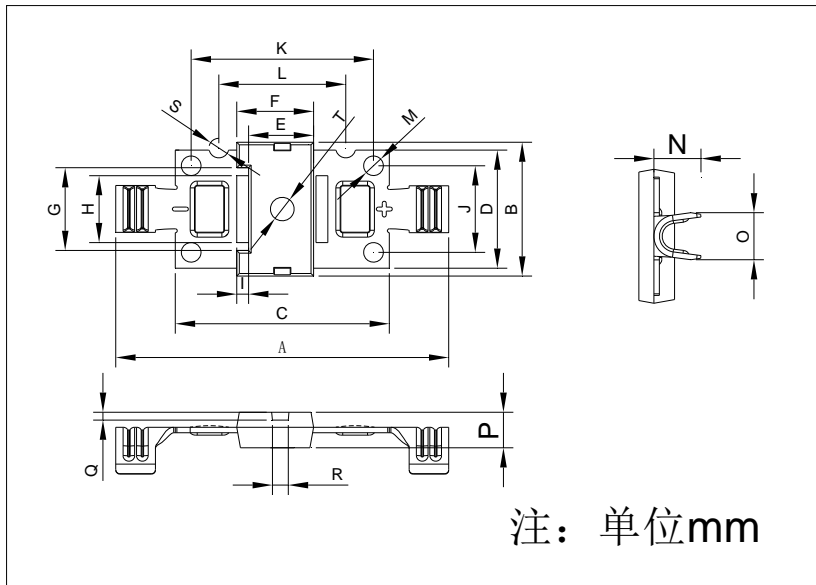
Characteristics (Typical)





GFMK4045

Outline Dimensions (in millimeters)



| DIM | MM | | NOTE |
|-----|----------|------|------|
| | MIN | MAX | |
| A | 41.5 | 42.5 | |
| B | 16.5 | 17.5 | |
| C | 26.5 | 27.5 | |
| D | 14.5 | 15.5 | |
| E | 7.9 | 8.5 | |
| F | 9.4 | 10 | |
| G | 10.50REF | | |
| H | 8.2 | 8.8 | |
| I | 1.2 | 1.8 | |
| J | 10.7 | 11.3 | |
| K | 22.7 | 23.3 | |
| L | 15.7 | 16.3 | |
| M | 2.35 | 2.65 | |
| N | 5.65 | 6.25 | |
| O | 5.72 | 6.22 | |
| P | 4.4 | 4.6 | |
| Q | 0.7 | 1.3 | |
| R | 1.7 | 2.3 | |
| S | 2.3 | 2.7 | |
| T | 2.7 | 3.3 | |



GFMK4045

Disclaimer

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