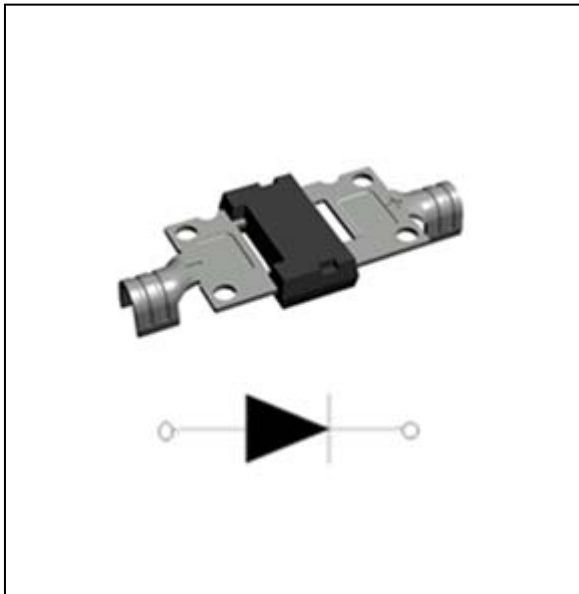




GFMK3045P

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 ($T_a=25$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | GFMK3045P |
|--|------------------|------------------|-----------|
| Device marking code | | | GFMK3045P |
| Repetitive Peak Reverse Voltage | VRRM | V | 45 |
| Average Rectified Output Current @60Hz sine wave, R-load, $T_a=25$ | I _O | A | 30 |
| Surge(Non-repetitive)Forward Current @60Hz sine wave, 1 cycle, $T_j=25$ | I _{FSM} | A | 350 |
| Current Squared Time @1ms $t < 8.3ms$ $T_j=25$, Rating of per diode | I ² t | A ² S | 505 |
| Storage Temperature | T _{stg} | | -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 ($T_a=25$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | TEST CONDITIONS | GFMK3045P |
|---|------------------|------|-----------------------|-----------|
| Maximum instantaneous forward voltage drop per diode | V _F | V | I _{FM} =30A | 0.55 |
| Maximum DC reverse current at rated DC blocking voltage per diode | I _{RRM} | μA | V _{RM} =VRRM | 200 |

Thermal Characteristics ($T_a=25$ Unless otherwise specified)

| PARAMETER | SYMBOL | UNIT | GFMK3045P |
|----------------------|------------------|------|-----------|
| Thermal Resistance 1 | R _{J-C} | /W | 1.5 |

Note

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



GFMK3045P

Ordering Information (Example)

| PREFERRED P/N | UNIT WEIGHT(g) | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|-----------------|----------------------|-------------------------|----------------------------|---------------|
| GFMK3045P | Approximate 4.0 | 30 | 600 | 2400 | Tube |

Characteristics (Typical)

FIG1:Io -Tc Curve

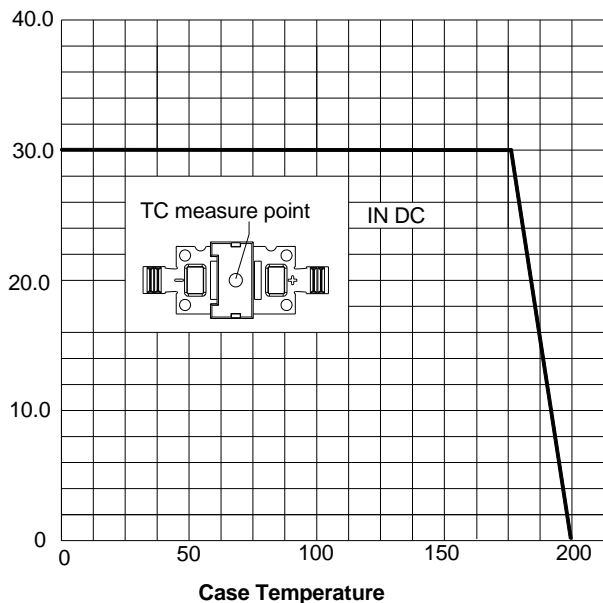


FIG2: Surge Forward Current Capability

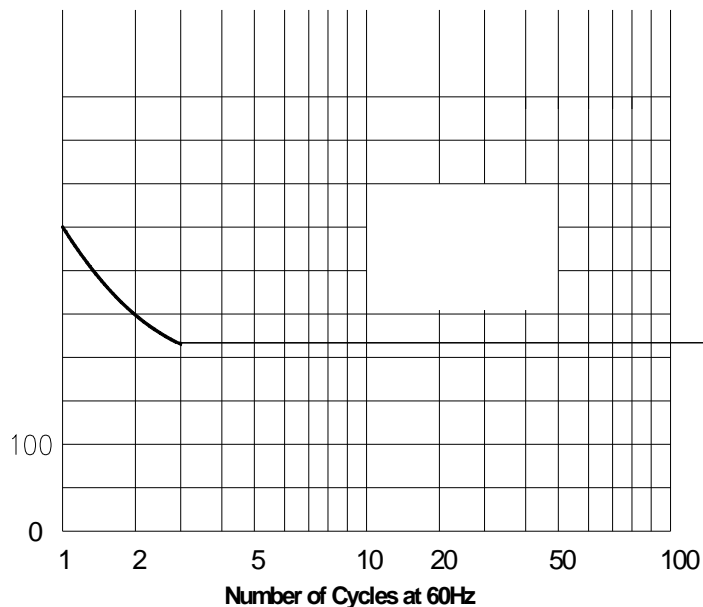


FIG3: Instantaneous Forward Voltage

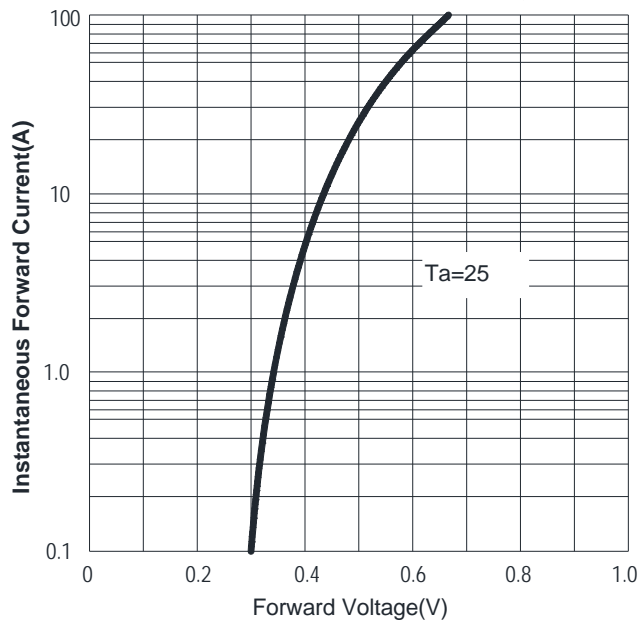
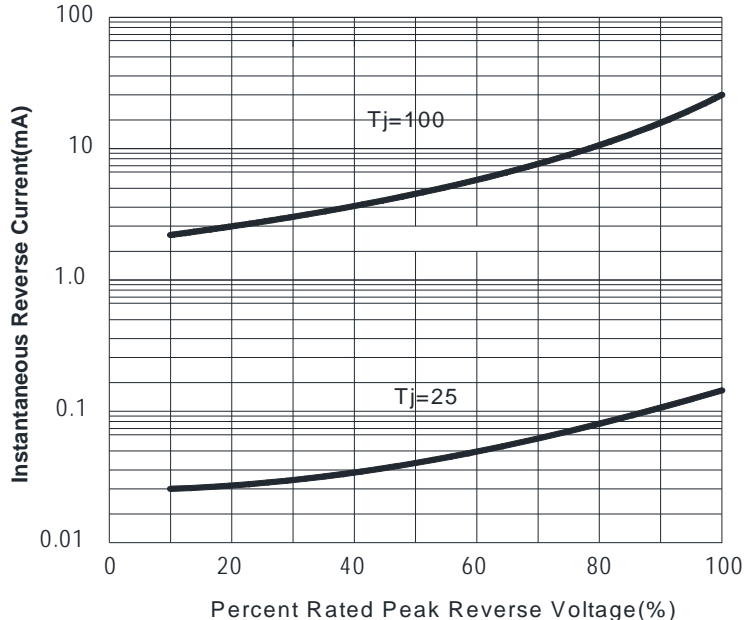
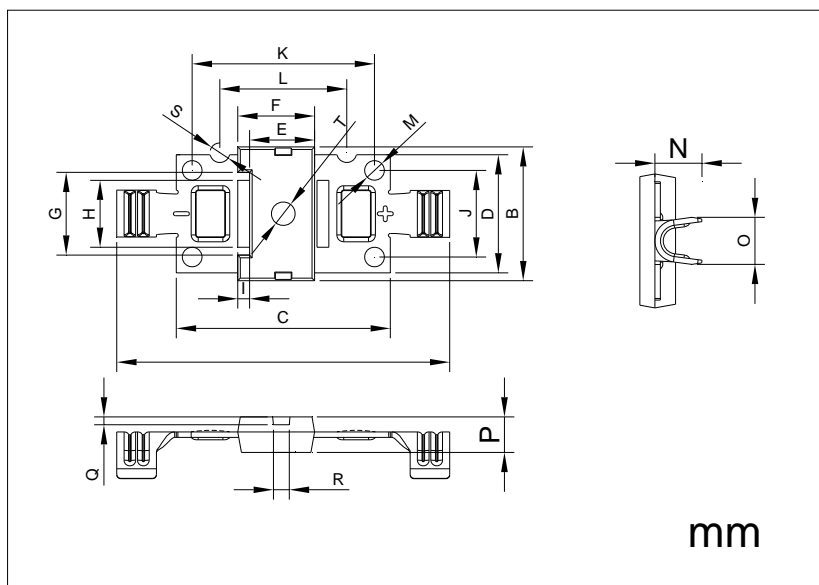


FIG4: Instantaneous Reverse Characteristics



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. | 2. | |
| 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. | 2. | |
| T | 2. | 3. | |



GFMK3045P

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