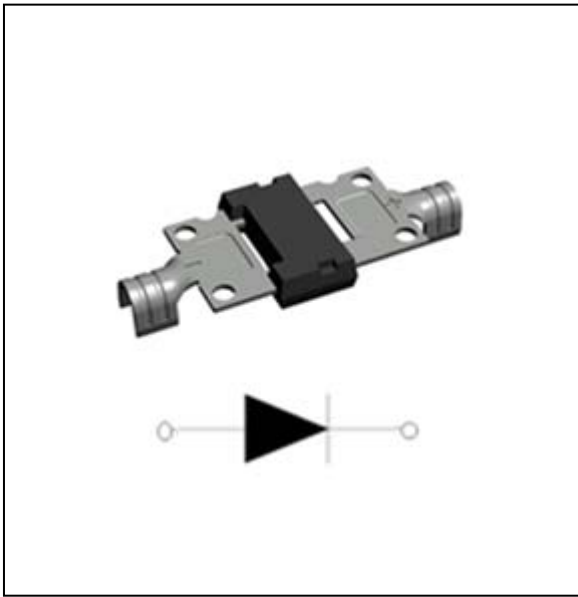




GFMK4045

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, $T_a=25^\circ\text{C}$	IO	A	40
Surge(Non-repetitive)Forward Current @60Hz sine wave, 1 cycle, $T_j=25^\circ\text{C}$	IFSM	A	400
Current Squared Time @1ms≤t<8.3ms $T_j=25^\circ\text{C}$, Rating of per diode	I ² t	A ² S	660
Storage Temperature	Tstg	°C	-55 ~+150
Junction Temperature IN DC Forward Mode-Forward Operations, without reverse bias, t≤1 h (Fig. 1) (1)	Tj	°C	-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	IFM=40A	0.52
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM1	mA	VRM=VRRM $T_a=25^\circ\text{C}$	0.1
	IRRM2	mA	VRM=VRRM $T_a=100^\circ\text{C}$	12
	IRRM3	mA	VRM=VRRM $T_a=125^\circ\text{C}$	55



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

PARAMETER	SYMBOL	UNIT	GFMK4045
Thermal Resistance (1)	$R_{\theta J-C}$	$^\circ\text{C/W}$	1.5

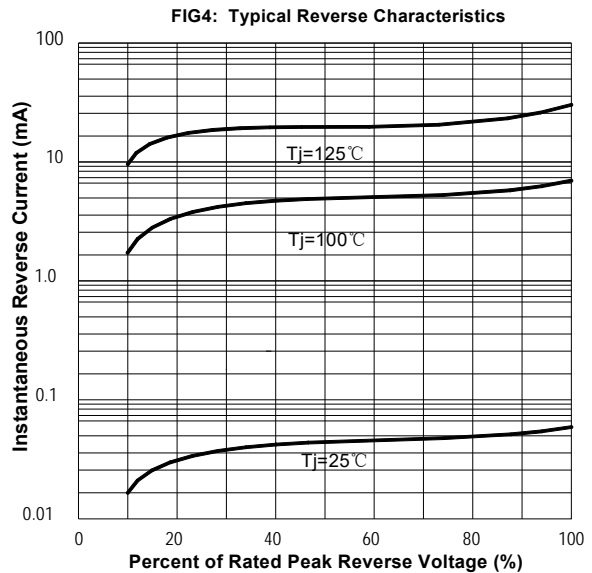
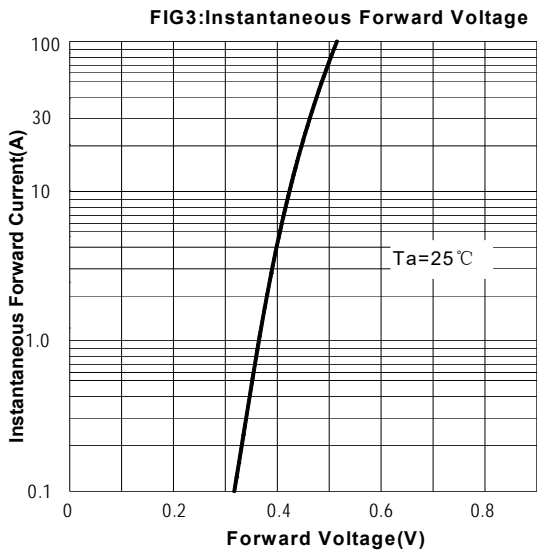
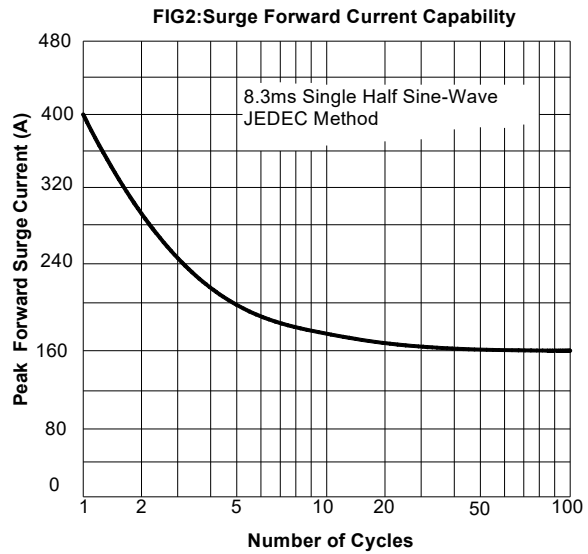
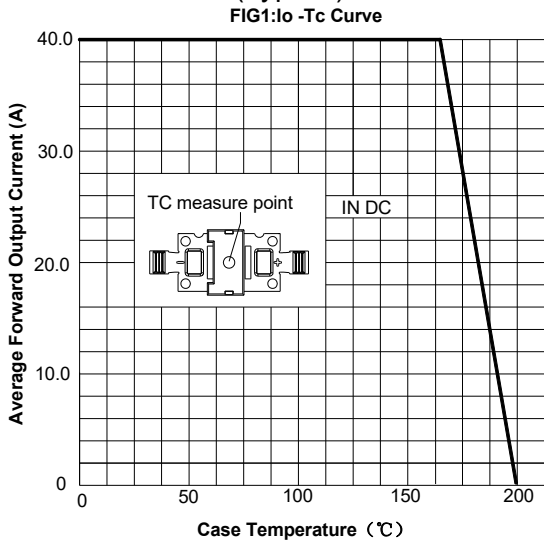
Note

(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

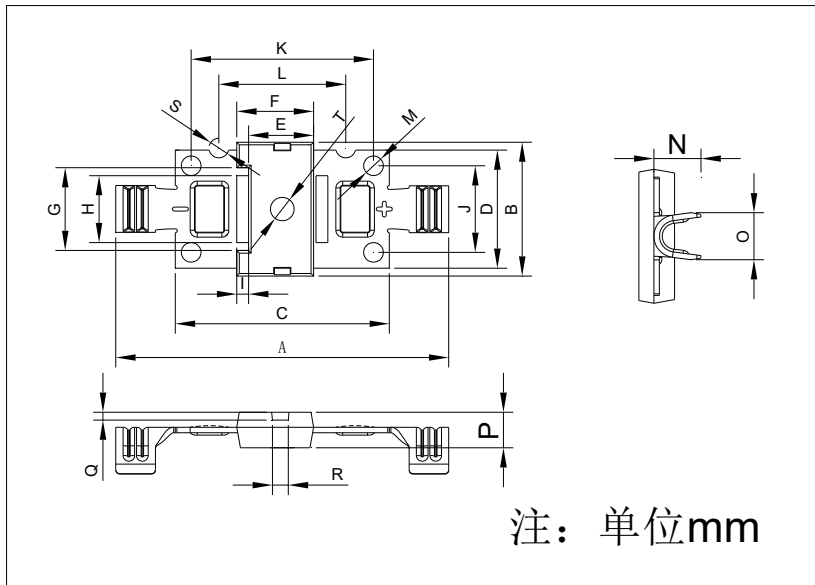
■ Characteristics (Typical)





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	Φ2.35	Φ2.65	
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	Φ2.3	Φ2.7	
T	Φ2.7	Φ3.3	



GFMK4045

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