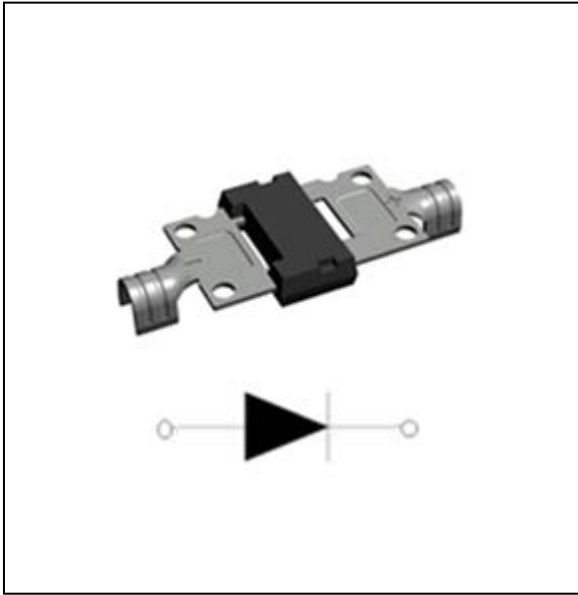




# GFMK4045

## 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 ( $T_a=25$ 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 $t < 8.3ms$ $T_j=25$ , Rating of per diode	$I^2t$	A <sup>2</sup> S	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 ( $T_a=25$ 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 $T_a=25$	0.1
	IRRM2	mA	VRM=VRRM $T_a=100$	12
	IRRM3	mA	VRM=VRRM $T_a=125$	55



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

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

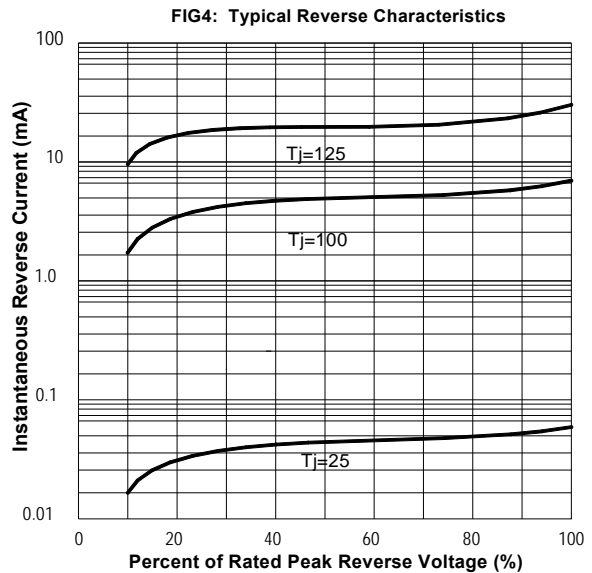
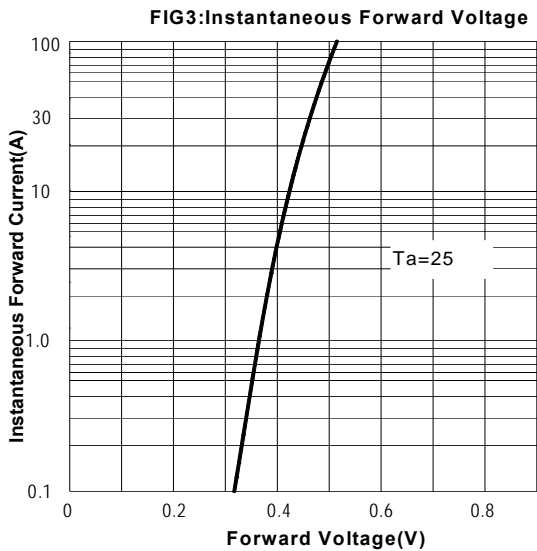
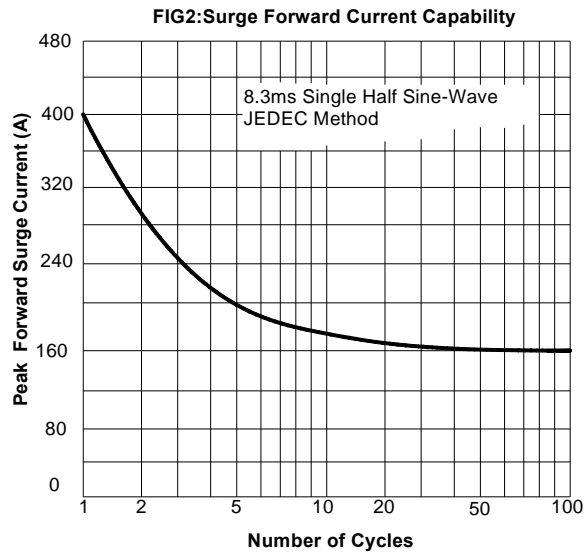
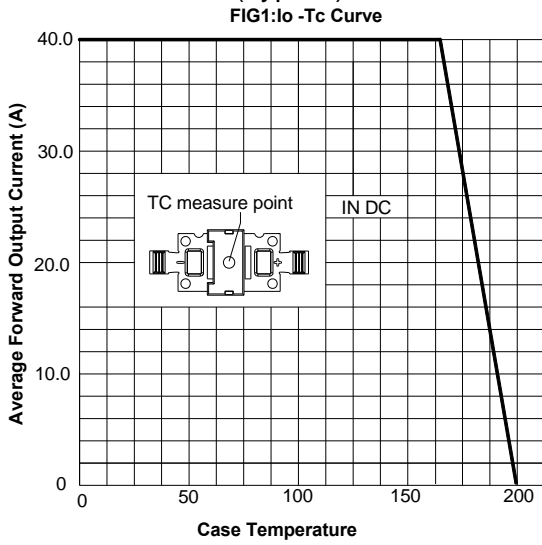
### Note

(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

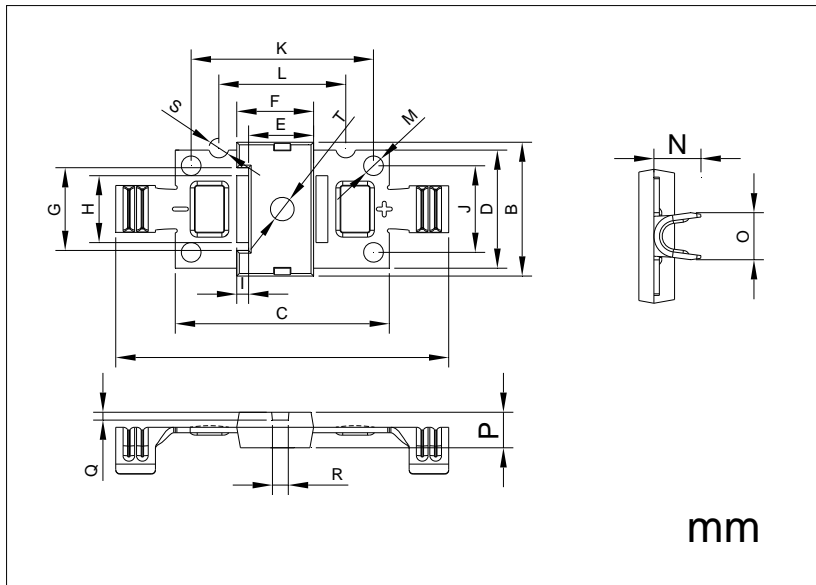
## Characteristics (Typical)





# 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

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