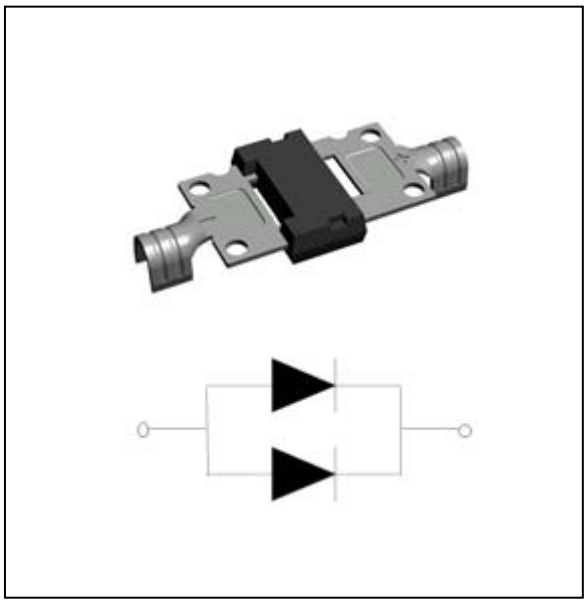
Schottky Bypass Diode Module



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	GFMK4045C
Device marking code			GFMK4045C
Repetitive Peak Reverse Voltage	V_{RRM}	V	45
Average Rectified Output Current @60Hz sine wave, R-load, Ta=25℃	I_O	A	40
Surge(Non-repetitive)Forward Current @60Hz sine wave, 1 cycle, Tj=25℃	I_{FSM}	A	650
Current Squared Time @1ms≤t<8.3ms Tj=25℃, Rating of per diode	I^2t	A^2S	1750
Storage Temperature	Tstg	℃	-55 ~+150
Junction Temperature IN DC Forward Mode-Forward Operations，without reverse bias, t ≤1 h (Fig. 1)（1）	Tj	℃	-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	GFMK4045C
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=40A	0.51
Maximum DC reverse current at rated DC blocking voltage per diode	I_{RRM1}	mA	$V_{RM}=V_{RRM}$ Ta=25℃	0.12
	I_{RRM2}	mA	$V_{RM}=V_{RRM}$ Ta=100℃	13
	I_{RRM3}	mA	$V_{RM}=V_{RRM}$ Ta=125℃	60

■Thermal Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GFMK4045C
Thermal Resistance（1）	$R_{\theta J-C}$	℃/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
GFMK4045C	Approximate 4.0	30	600	2400	Tube

■Characteristics (Typical)

FIG1:Io -Tc Curve

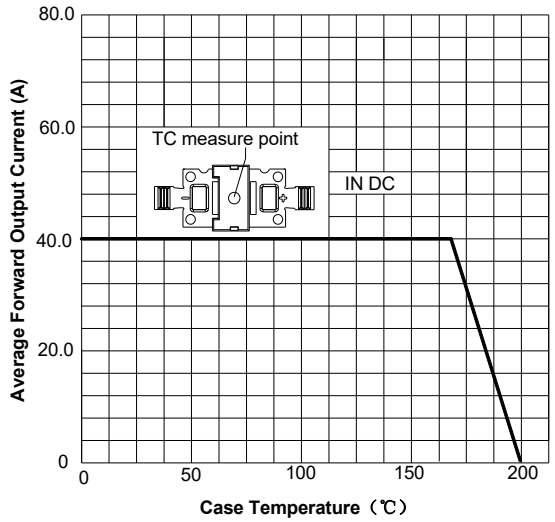


FIG2:Surge Forward Current Capability

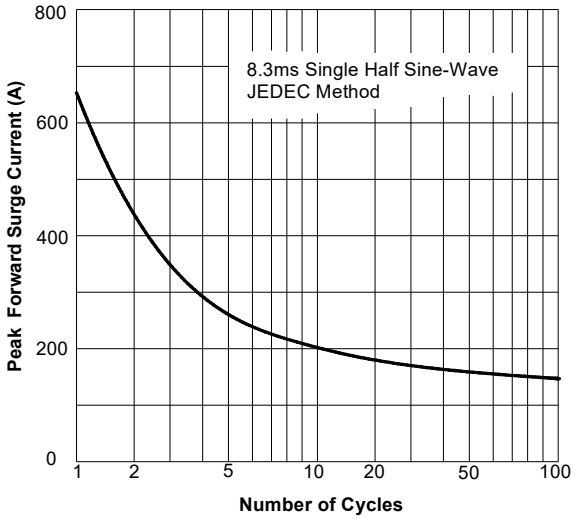


FIG3:Instantaneous Forward Voltage

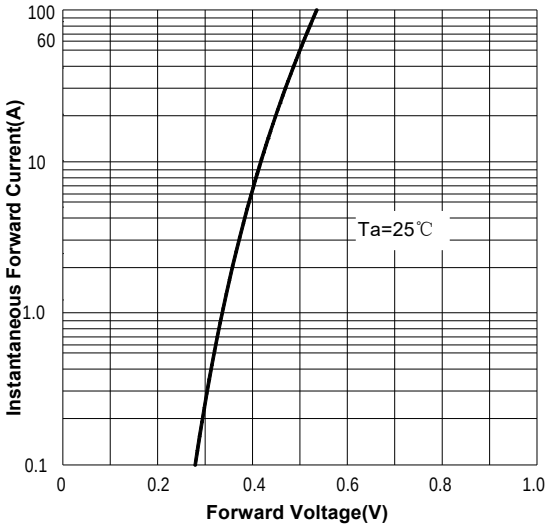
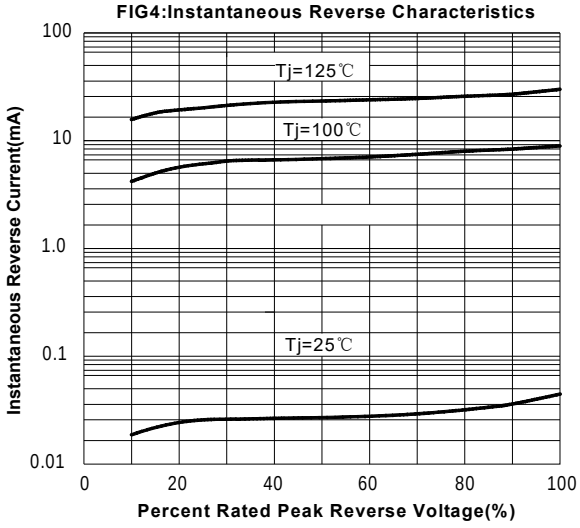
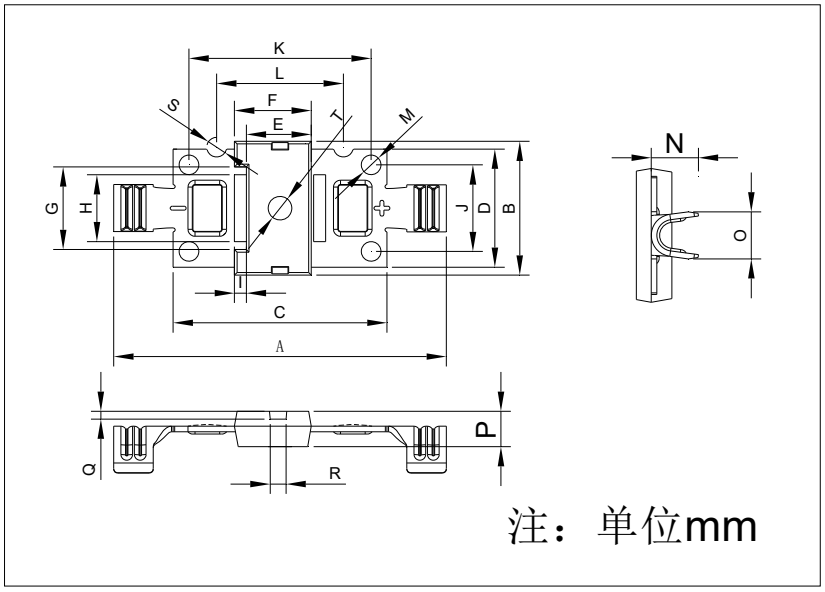


FIG4:Instantaneous Reverse Characteristics



■**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	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	

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