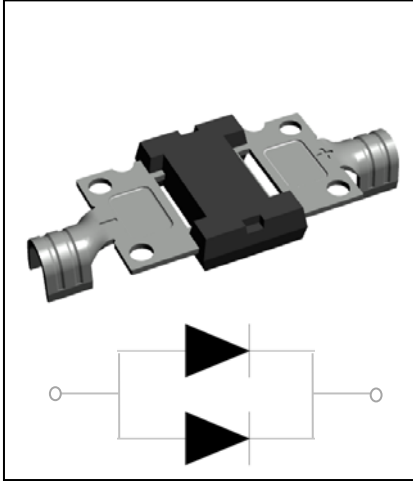


Schottky Bypass Diode Module



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:** GF019
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **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	GFMK6045C
Device marking code			GFMK6045C
Repetitive Peak Reverse Voltage	VRRM	V	45
Average Rectified Output Current @60Hz sine wave, R-load, $T_a=25^\circ\text{C}$	IO	A	60
Surge(Non-repetitive)Forward Current @60Hz sine wave, 1 cycle, $T_j=25^\circ\text{C}$	IFSM	A	500
Current Squared Time @ $1\text{ms}\leq t < 8.3\text{ms}$ $T_j=25^\circ\text{C}$, Rating of per diode	I^2t	A^2S	1030
Storage Temperature	T_{stg}	$^\circ\text{C}$	-55 ~+150
Junction Temperature IN DC Forward Mode-Forward Operations, without reverse bias, $t \leq 1$ h (Fig. 1) (1)	T_j	$^\circ\text{C}$	-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	GFMK6045C
Maximum instantaneous forward voltage drop per diode	V_F	V	$I_{FM}=60\text{A}$	0.53
Maximum DC reverse current at rated DC blocking voltage per diode	I _{RRM1}	mA	$V_{RM}=V_{RRM}$ $T_a=25^\circ\text{C}$	0.2
	I _{RRM2}	mA	$V_{RM}=V_{RRM}$ $T_a=100^\circ\text{C}$	20

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

PARAMETER	SYMBOL	UNIT	GFMK6045C
Thermal Resistance (1)	$R_{\theta J-C}$	$^\circ\text{C}/\text{W}$	1.5

Note

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

GFMK6045C

Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GFMK6045C	Approximate 4.0	30	600	3000	Tube

Characteristics (Typical)

FIG1:Io -Tc Curve

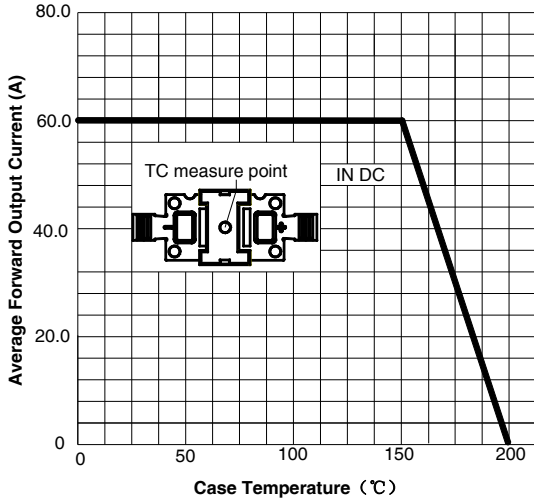


FIG2:Surge Forward Current Capability

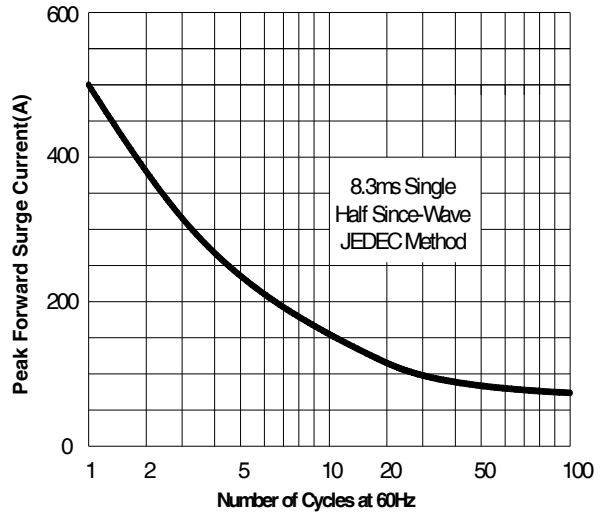


FIG3:Instantaneous Forward Voltage

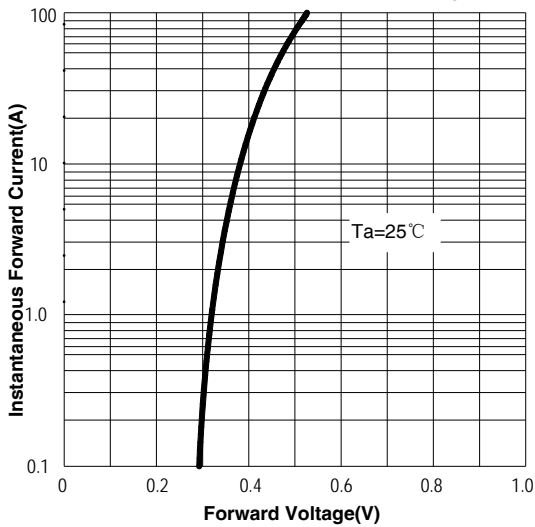
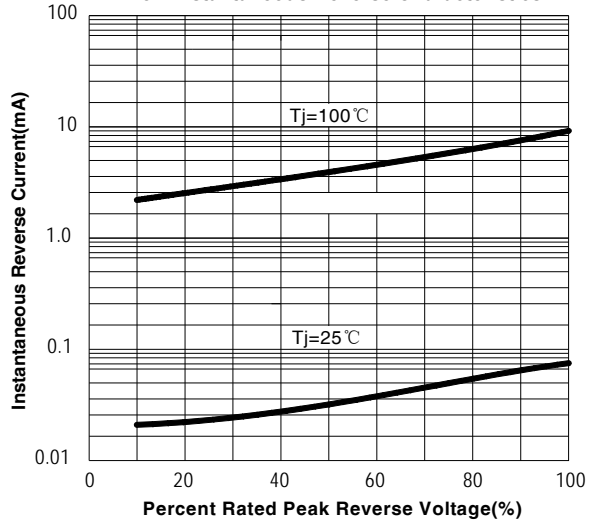
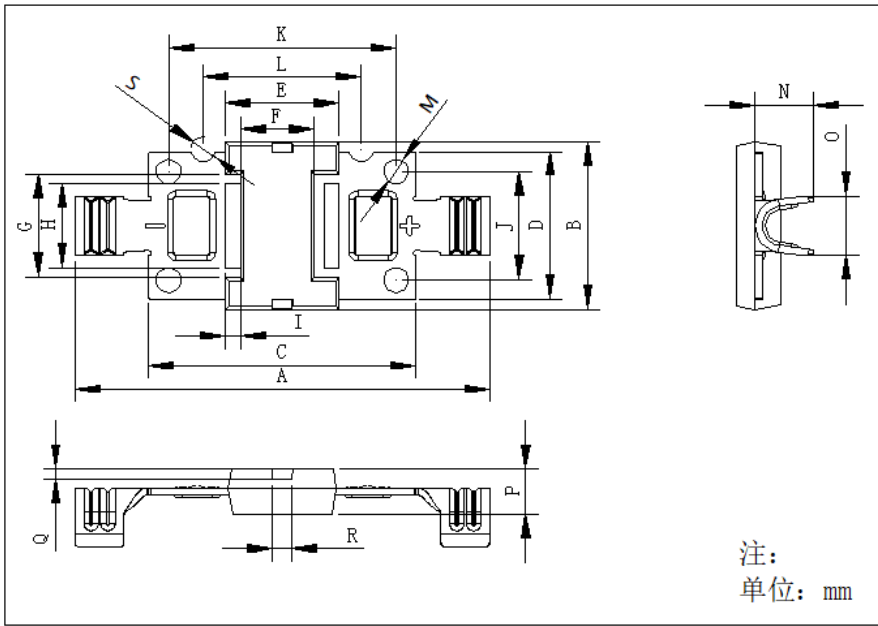


FIG4:Instantaneous Reverse Characteristics



GFMK6045C

■Outline Dimensions (in millimeters)



DIM	MM		NOTE
	MIN	MAX	
A	41.90	42.10	
B	16.90	17.10	
C	26.90	27.10	
D	14.90	15.10	
E	11.50REF		
F	7.50REF		
G	10.50REF		
H	8.45	8.55	
I	1.45	1.55	
J	10.95	11.05	
K	22.95	23.05	
L	15.95	16.05	
M	Φ2.45	Φ2.55	
N	5.80	6.10	
O	5.82	6.12	
P	4.40	4.60	
Q	1.00REF		
R	2.00REF		
S	Φ2.45	Φ2.55	

GFMK6045C

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