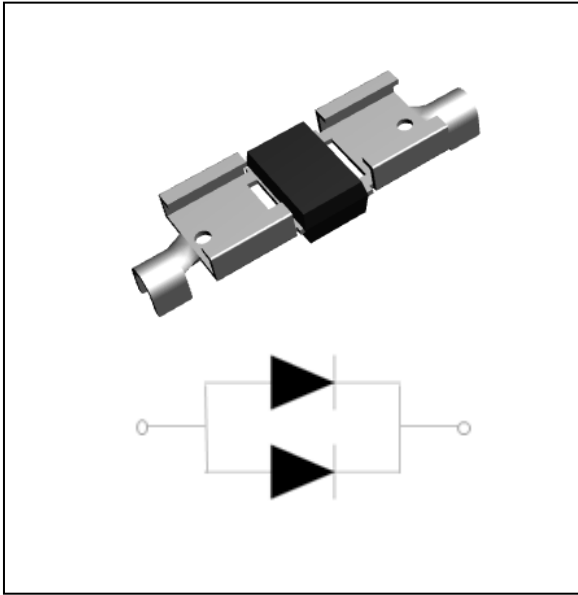


Schottky Bypass Diode Module



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

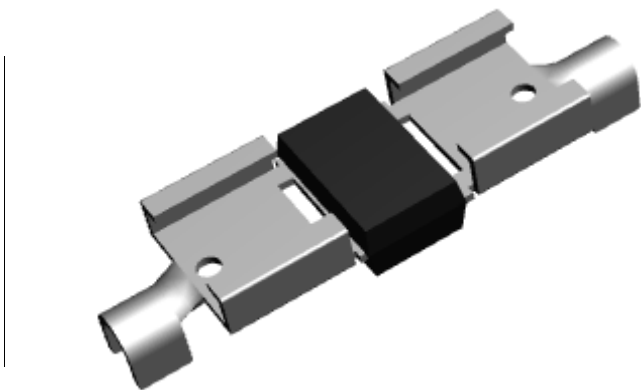
- **Package:** GF040C
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD 22-B102
- **Polarity:** As marked

■Maximum Ratings (Ta=25°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, Ta=25°C	IO	A	60
Surge(Non-repetitive)Forward Current @60Hz sine wave, 1 cycle, Tj=25°C	IFSM	A	430
Current Squared Time @1ms≤t<8.3ms Tj=25°C, Rating of per diode	I ² t	A ² S	765
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.



e specified)

DL	UNIT	TEST CONDITIONS	GFMK6045C
	V	IFM=60A	0.51
1	mA	V _{RM} =V _{RRM} Ta=25°C	0.12
2	mA	V _{RM} =V _{RRM} Ta=100°C	15
3	mA	V _{RM} =V _{RRM} Ta=125°C	60



GFMK6045C

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

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

Note

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

■ Characteristics (Typical)

FIG1: $I_o - T_c$ Curve

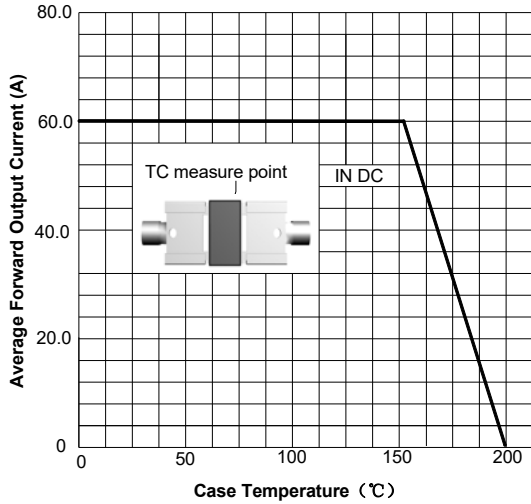


FIG2: Surge Forward Current Capability

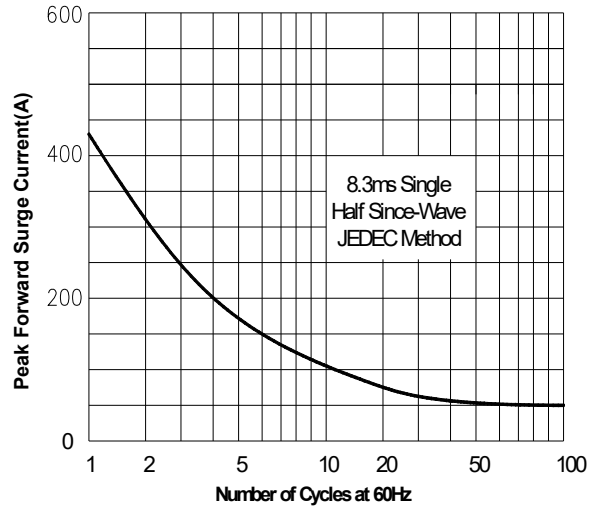


FIG3: Instantaneous Forward Voltage

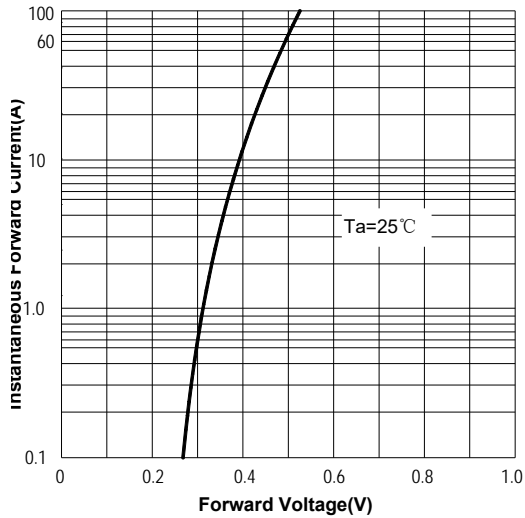
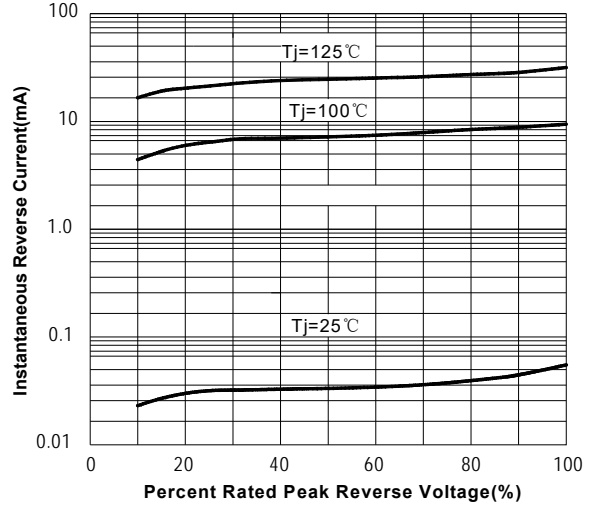


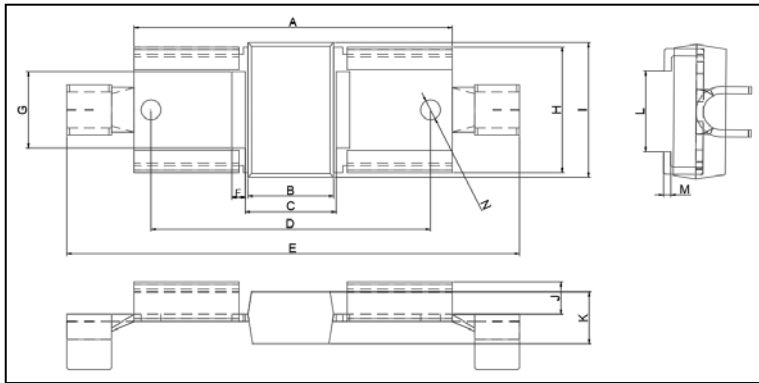
FIG4: Instantaneous Reverse Characteristics





GFMK6045C

■Outline Dimensions (in millimeters)



DIM	MM		NOTE
	MIN	MAX	
A	34.95	35.05	
B	9.50	9.60	
C	10.10	10.20	
D	31.15	31.25	
E	49.90	50.10	
F	1.75	1.85	
G	8.45	8.55	
H	13.95	14.05	
I	14.95	15.05	
J	3.55	3.65	
K	5.75	5.85	
L	8.95	9.05	
M	0.75	0.85	
N	2.15	2.25	



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