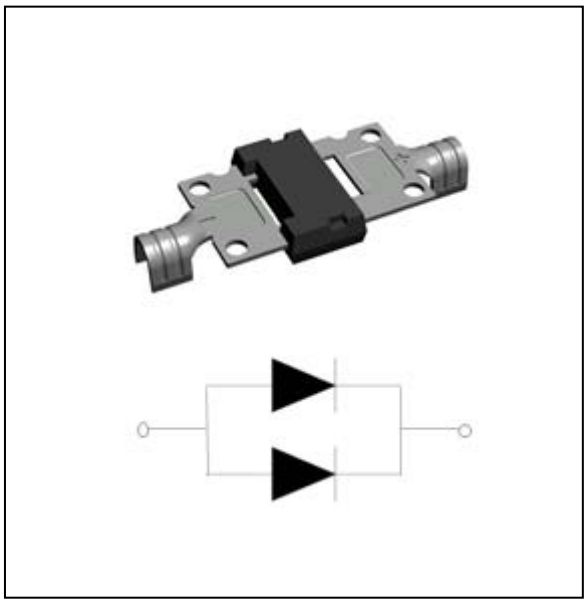
Schottky Bypass Diode Module



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	GFMK6045C
Device marking code			GFMK6045C
Repetitive Peak Reverse Voltage	V_{RRM}	V	45
Average Rectified Output Current @60Hz sine wave, R-load, Ta=25℃	I_O	A	60
Surge(Non-repetitive)Forward Current @60Hz sine wave, 1 cycle, Tj=25℃	I_{FSM}	A	700
Current Squared Time @1ms≤t<8.3ms Tj=25℃, Rating of per diode	I^2t	A^2S	2030
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	GFMK6045C
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=60A	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℃	18
	I_{RRM3}	mA	V_{RM}=V_{RRM} Ta=125℃	70

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

PARAMETER	SYMBOL	UNIT	GFMK6045C
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
GFMK6045C	Approximate 4.0	30	600	2400	Tube

■Characteristics (Typical)

FIG1:Io -Tc Curve

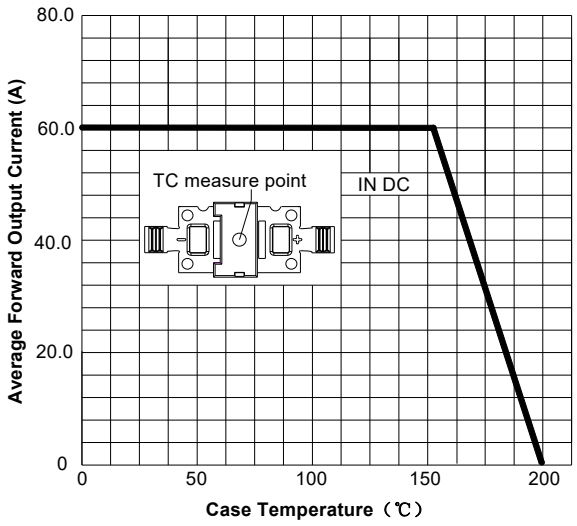


FIG2:Surge Forward Current Capability

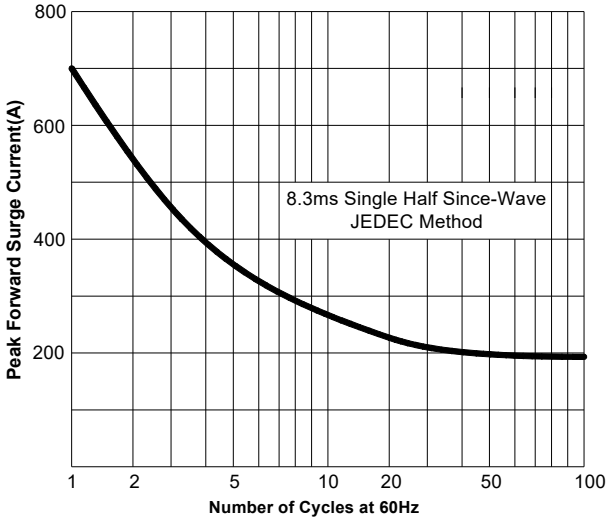


FIG3:Instantaneous Forward Voltage

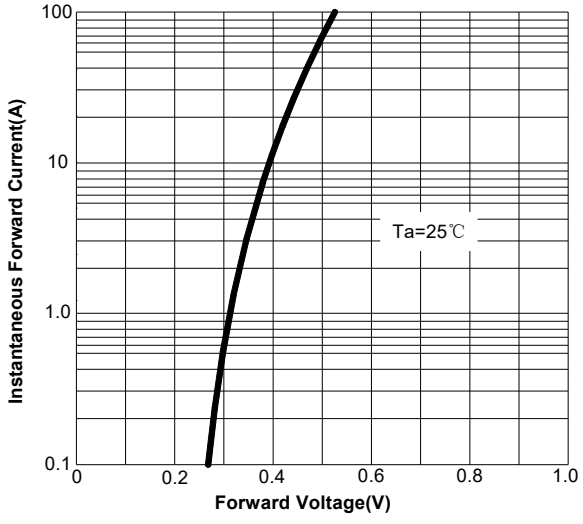
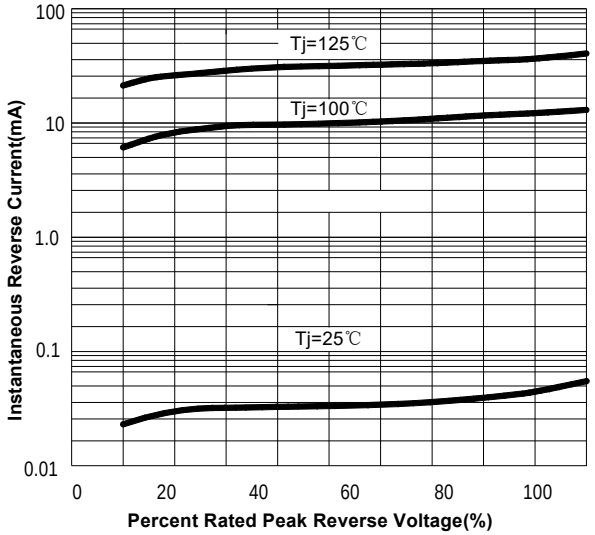
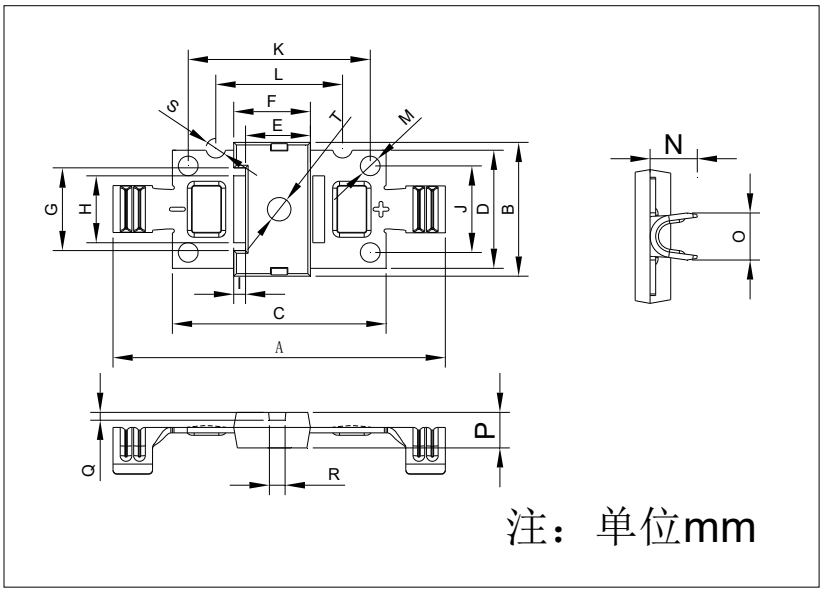


FIG4:Instantaneous Reverse Characteristics



■**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	

Notice

All products, product specifications and data are subject to change without notice to improve reliability, function or design or otherwise. Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in STARSEA's terms and conditions of sale for such products, STARSEA assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of STARSEA products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.