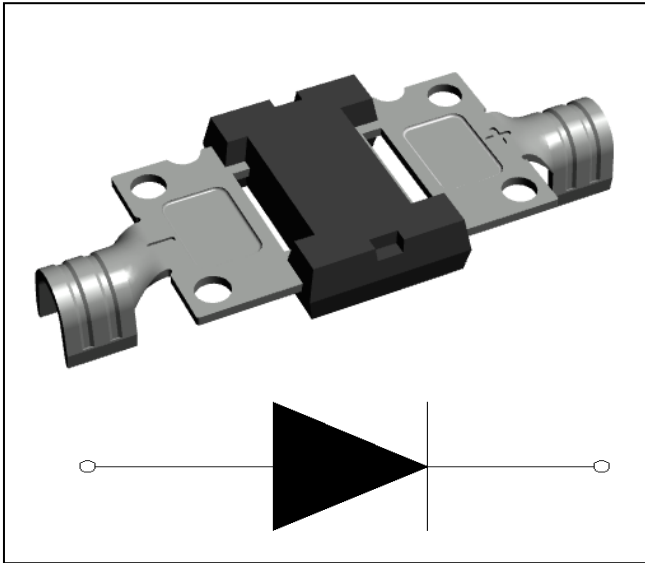


## Schottky Bypass Diode Module



### 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<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GFMK3045
Device marking code			GFMK3045
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	45
Average Rectified Output Current @60Hz sine wave, R-load, T <sub>a</sub> =25°C	I <sub>O</sub>	A	30
Surge(Non-repetitive)Forward Current @60Hz sine wave, 1 cycle, T <sub>j</sub> =25°C	I <sub>FSM</sub>	A	375
Current Squared Time @1ms≤t<8.3ms T <sub>j</sub> =25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> S	590
Storage Temperature	T <sub>stg</sub>	°C	-55 ~+150
Junction Temperature IN DC Forward Mode-Forward Operations, without reverse bias, t≤1 h (Fig. 1) (1)	T <sub>j</sub>	°C	-55 ~+200

#### NOTE

(1) Meets the requirements of IEC 61215 Ed. 2 bypass diode thermal test.

### ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	GFMK3045
Maximum instantaneous forward voltage drop per diode	V <sub>F</sub>	V	I <sub>FM</sub> =30A	0.55
Maximum DC reverse current at rated DC blocking voltage per diode	I <sub>RRM</sub>	μA	V <sub>RM</sub> =V <sub>RRM</sub>	200

### ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	GFMK3045
Thermal Resistance (1)	R <sub>θJ-C</sub>	°C/W	1.5

#### Note

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



# GFMK3045

## Ordering Information (Example)

PREFERRED P/N	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
GFMK3045	Approximate 4.0	30	600	3000	Tube

## Characteristics (Typical)

FIG1:Io -Tc Curve

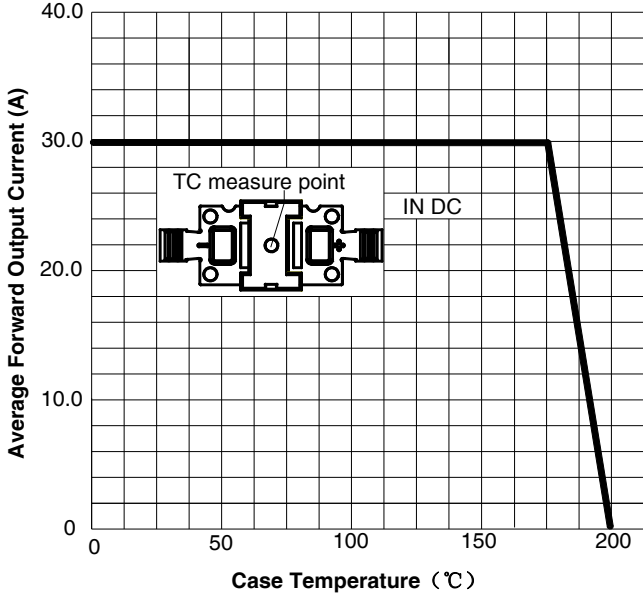


FIG2: Surge Forward Current Capability

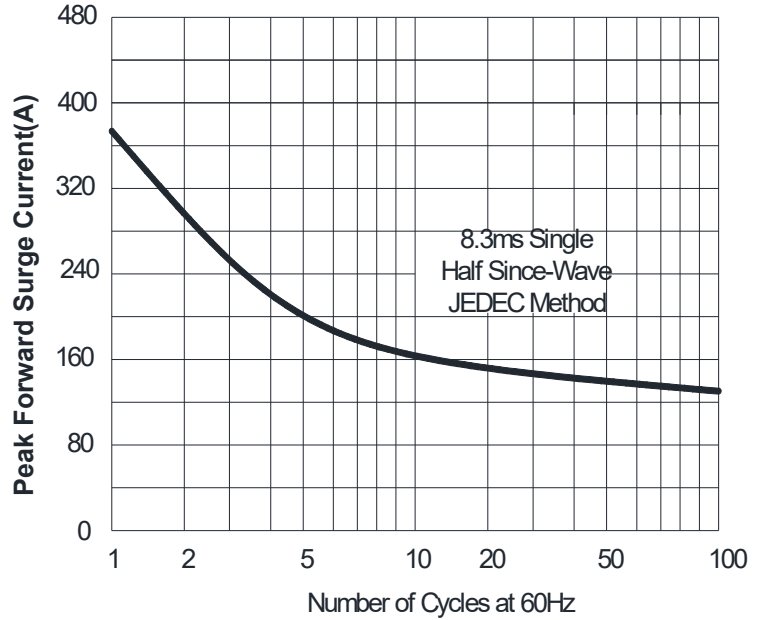


FIG3: Instantaneous Forward Voltage

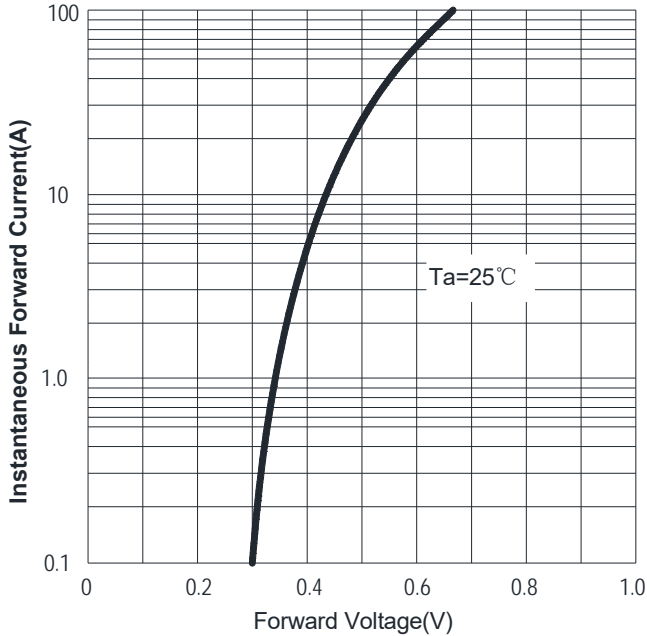
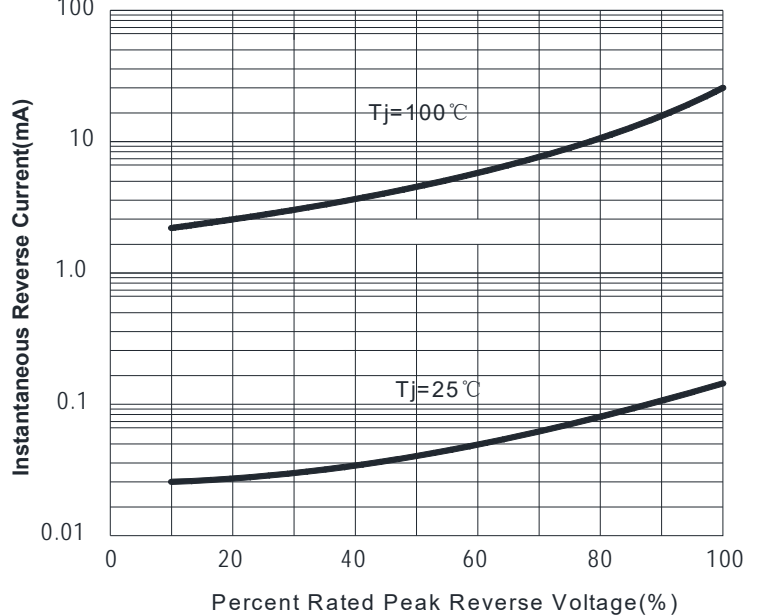


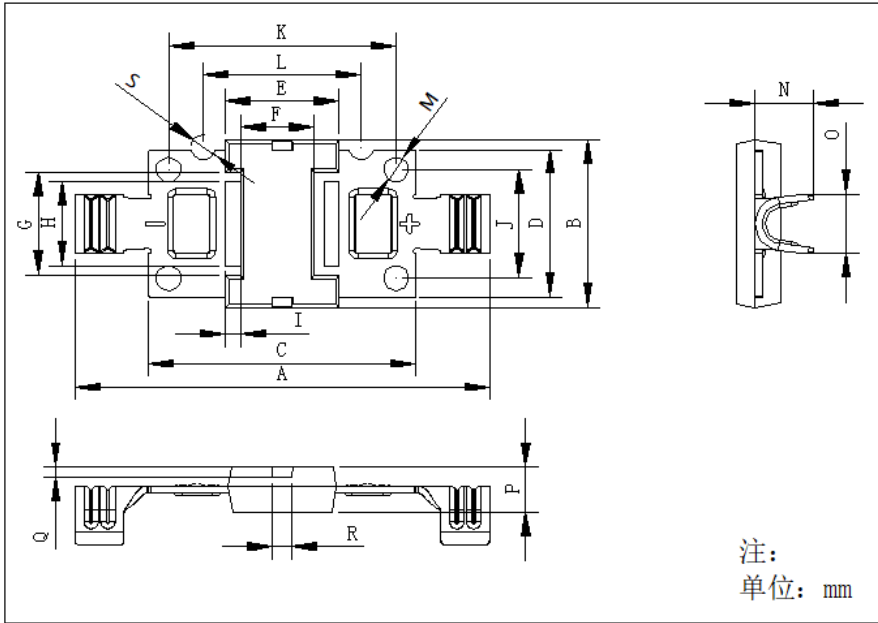
FIG4: Instantaneous Reverse Characteristics





# GFMK3045

## ■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	



## Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.