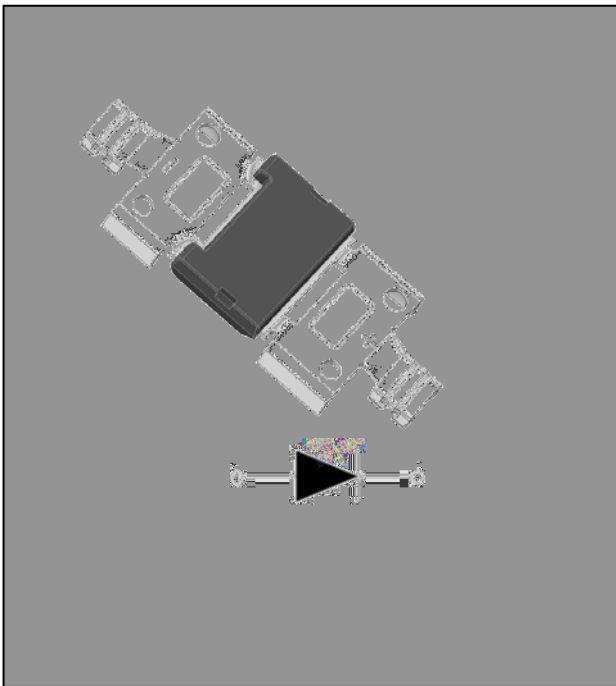




MK3045

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 /
- long term reliability/

Typical Applications/

Photovoltaic solar cell protection schottky rectifier/

Mechanical Data/

- **Package/** : GF030S
- Molding compound meets UL 94 V-0 flammability rating/ UL 94 V-0
- **Terminals/** : Tin plated leads, solderable per J-STD-002 and JESD 22-B102/ J-STD-002 JESD 22-B102
- **Polarity/** : As marked/

■ Maximum Ratings ($T_a=25$ Unless otherwise specified / ($T_a=25$))

PARAMETER	SYMBOL	UNIT	MK3045
Device marking code			MK3045
Repetitive Peak Reverse Voltage	VRRM	V	45
Average Rectified Output Current @60Hz half sine-wave, R-load, $T_a=25$ 60HZ $T_a=25$	I_o	A	30
Surge(Non-repetitive)Forward Current@60Hz half sine-wave, 1 cycle, $T_a=25$ () 60HZ $T_j =25$	IFSM	A	325
Current Squared Time @1ms≤t<8.3ms $T_j=25$ (1ms t<8.3ms $T_j =25$)	I^2t	A ² s	435
Storage Temperature	T_{stg}		-55 ~+150
Junction Temperature/ IN DC Forward Mode-Forward Operations without reverse bias, t ≤1 h (Fig. 1)(1) 1h 1	T_j		-55 ~+200

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

■ Electrical Characteristics $T_a=25$ Unless otherwise specified / ($T_a=25$)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MK3045
Maximum instantaneous forward voltage drop per diode	VFM	V	IF=30A	0.55
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM1	mA	VRM=VRRM $T_a=25$	0.1
	IRRM2		VRM=VRRM $T_a=100$	7.0
	IRRM3		VRM=VRRM $T_a=125$	20



MK3045

■ Thermal Characteristics $T_a=25$ Unless otherwise specified / ($T_a=25$)

PARAMETER	SYMBOL	UNIT	MK3045
Thermal Resistance 1	$R_{\theta J-C}$	/W	1.0

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

(1) (1) Pn

■ Ordering Information (Example) / ()

PREFERRED P/N	UNIT WEIGHT(g) ()	MINIIMUM PACKAGE(pcs) ()	OUTER CARTON QUANTITY(pcs) ()	DELIVERY MODE
MK3045	Approximate 5.5 5.5 /	30	1500	Tube

■ Characteristics (Typical) / ()

FIG1: I_o -Tc Curve
 I_o -Tc

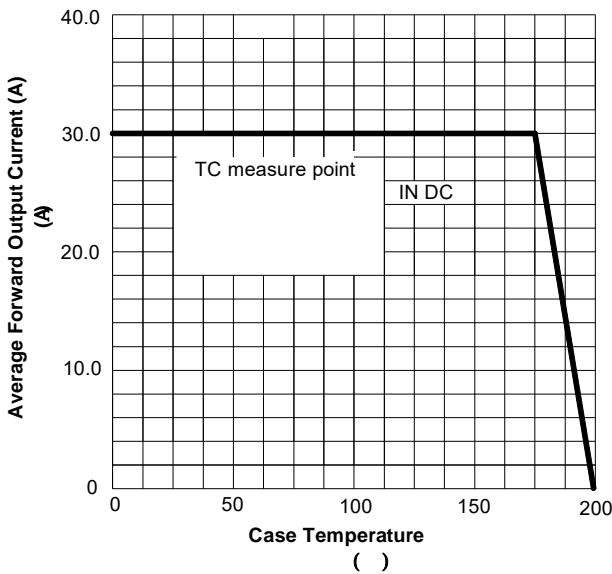


FIG2: Surge Forward Current Capability

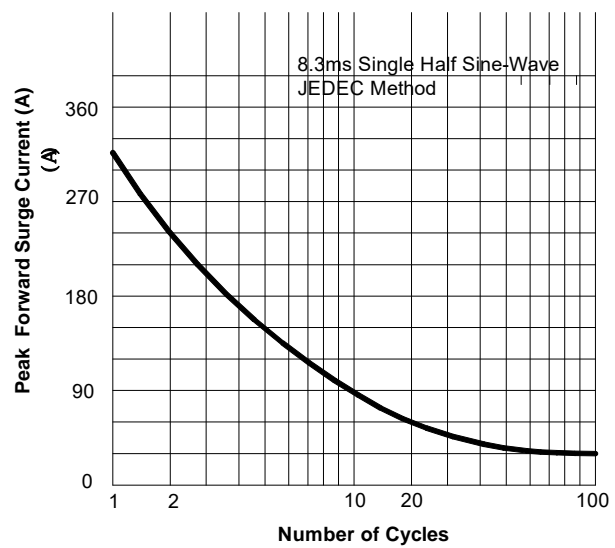


FIG3: Forward Voltage

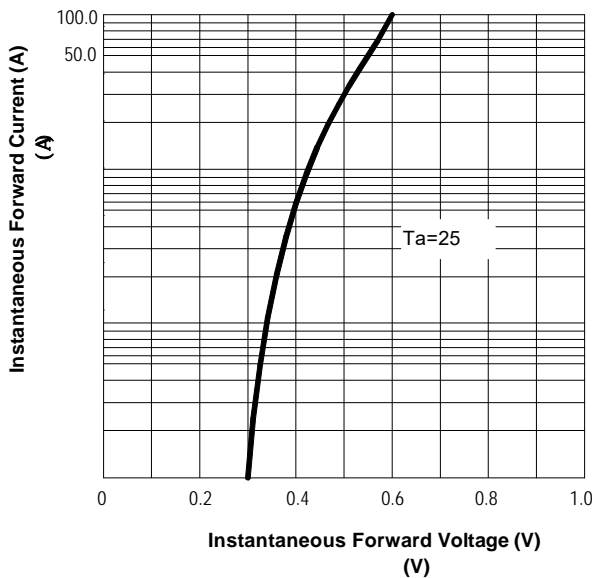
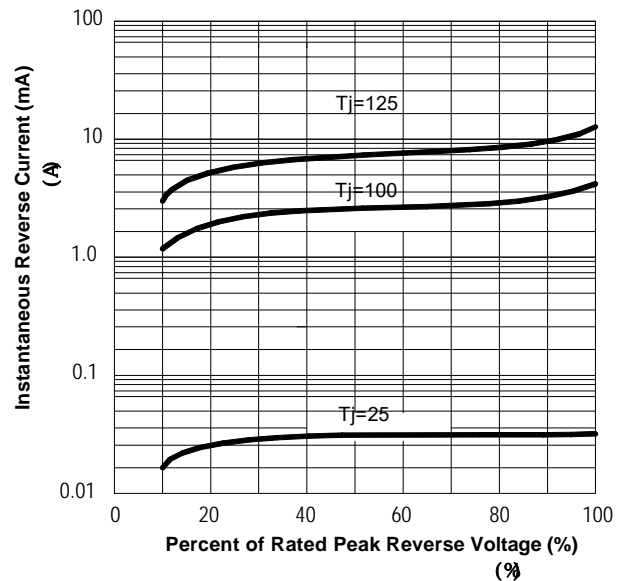
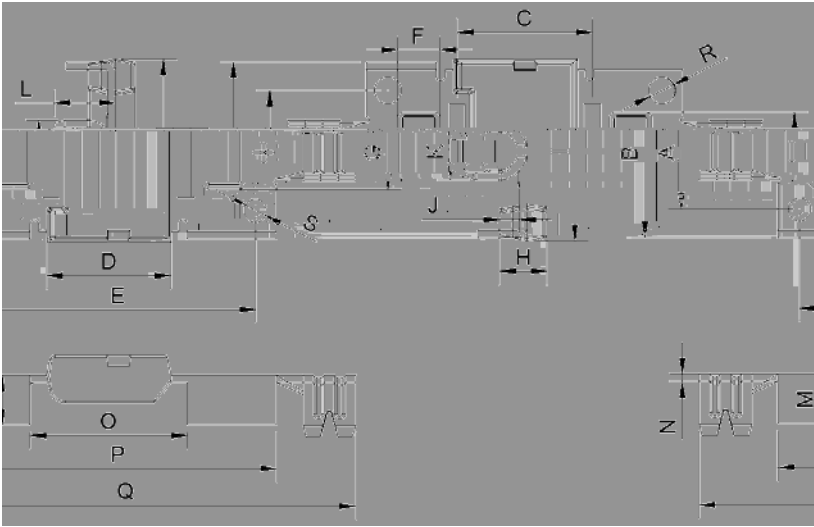


FIG4: Typical Reverse Characteristics





■Outline Dimensions /



DIM	MM		NOTE
	MIN	MAX	
A	10.5	11.5	
B	15.9	16.9	
C	11.6	12.6	
D	11.23	12.23	
E	25.5	26.5	
F	3.5	4.5	
G	6.5	7.5	
H	4.3	4.7	
I	16.5	17.5	
J	1.7	2.1	
K	5.1	5.7	
L	5.65	5.95	
M	4.4	5	
N	0.6	0.8	
O	14.73	15.13	
P	29.5	30.5	
Q	44.5	45.5	
R	2.35	2.65	
S	2	2.3	



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