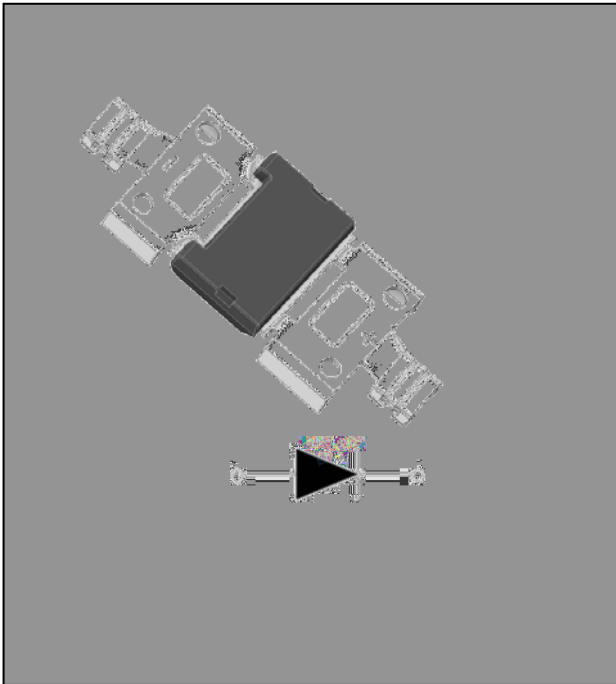




MK3045

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 / (Ta=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	I _o	A	30
Surge(Non-repetitive)Forward Current@60Hz half sine-wave, 1 cycle, T _a =25	I _{FSM}	A	325
Current Squared Time @1ms≤t<8.3ms T _j =25	I ² t	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)	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 / (Ta=25)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MK3045
Maximum instantaneous forward voltage drop per diode	VFM	V	I _F =30A	0.55
Maximum DC reverse current at rated DC blocking voltage per diode	IRRM1	mA	V _{RM} =VRRM T _a =25	0.1
	IRRM2		V _{RM} =VRRM T _a =100	7.0
	IRRM3		V _{RM} =VRRM T _a =125	20



MK3045

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

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

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

(1) (1) P_n

■ 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 - T_c Curve
 I_o - T_c

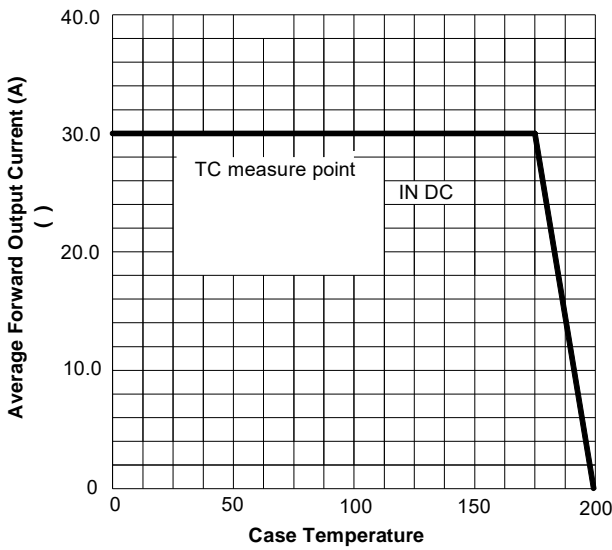


FIG2: Surge Forward Current Capability

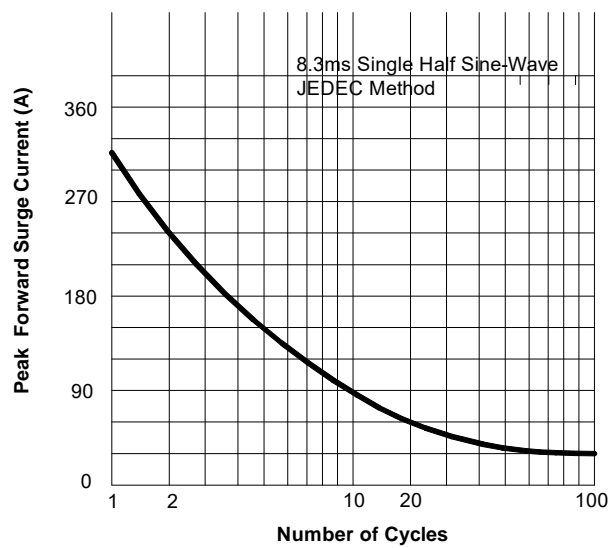


FIG3: Forward Voltage

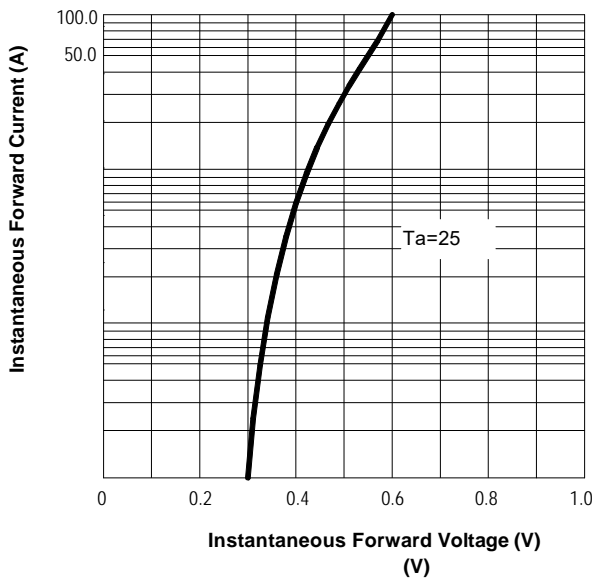
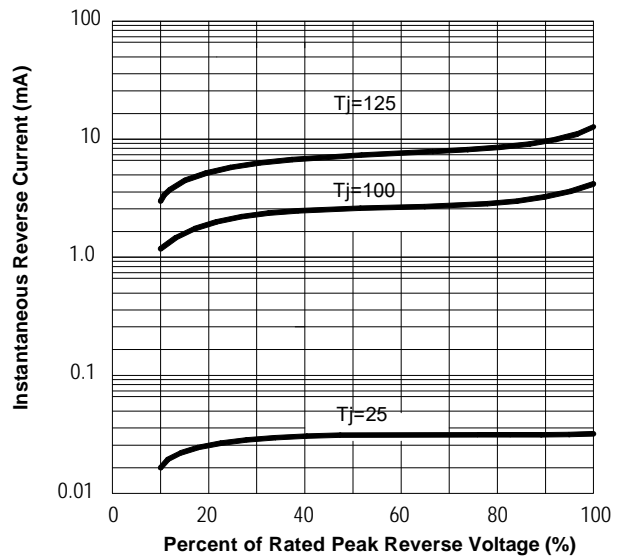
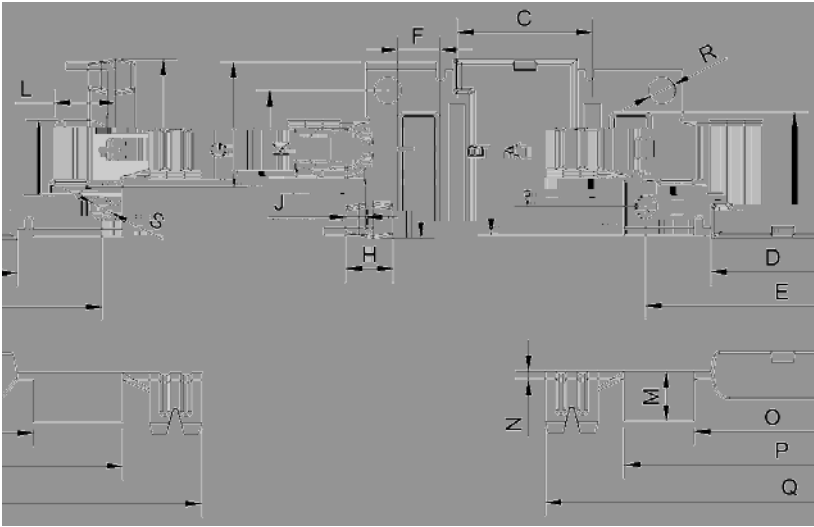


FIG4: Typical Reverse Characteristics





■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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