

CURRENT 50 Ampere
 VOLTAGE RANG 50 Volts

GMK5050

MAIN CHARACTERISTICS

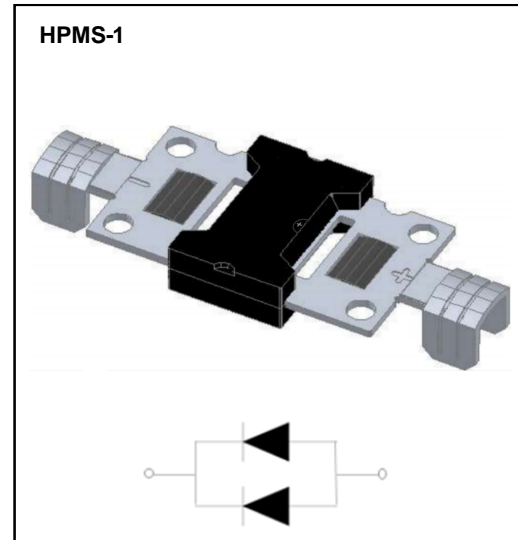
I_o	50 A
V_{RRM}	50 V
T_j	150 °C
$V_{F(typ)}$	0.52V

FEATURES

- Schottky Barrier high diode;
- Low thermal resistance;
- Lower forward voltage drop, low power loss;
- Isolate Package design, ideal for heat dispersion;
- High forward current capability;
- Excellent anti-humidity;
- Low profile package;
- High forward surge capability;

Mechical Data

- Case: HPMS-1;
- Terminals: Copper;
- High temperature soldering guaranteed;
 Heated-tool welding 260°C, 10seconds
- Marking: As marked on product;



MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	GMK5050	Unit
V_{RRM}	Peak repetitive reverse voltage	50	V
V_{RWM}	Working peak reverse voltage		
V_R	DC blocking voltage		
$V_{R(RMS)}$	RMS reverse voltage	35	V
I_o	Average rectified output current@60Hz half sine-wave, R-load, $T_a=25^\circ\text{C}$	50	A
I_{FSM}	Non-Repetitive peak forward surge current (8.3ms half sine wave)	700	A
i^2t	Rating for fusing ($t < 8.3\text{ms}$)	2033.5	A^2S
$R_{\theta jc}$	Thermal resistance from junction to case	1.5	$^\circ\text{C}/\text{W}$
T_j	Junction temperature IN DC Forward Mode-Forward Operations, without reverse bias, $t \leq 1\text{ h}$ (1)	-55~+150	$^\circ\text{C}$
T_{stg}	Storage temperature	-55~+150	$^\circ\text{C}$

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

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

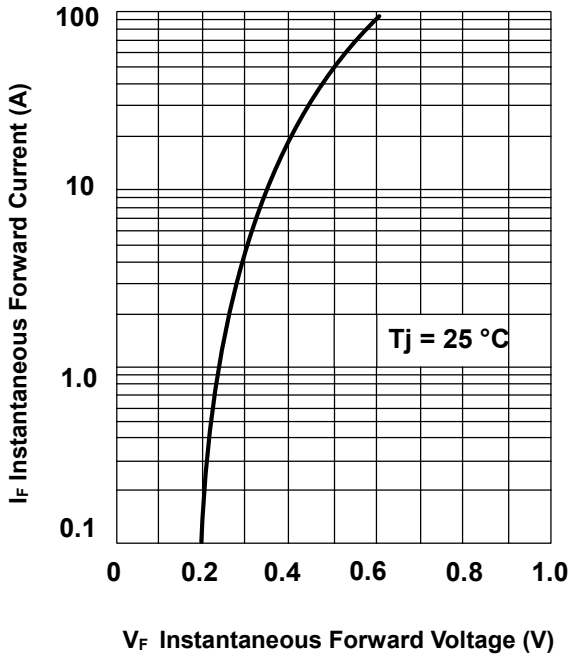
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	$I_R=1\text{mA}$	50			V
Reverse current	I_R	$V_R=45\text{V}$	$T_j=25^\circ\text{C}$	20	100	μA
			$T_j=100^\circ\text{C}$		15	mA
Forward voltage	V_F	$I_F=60\text{A}$ $T_j=25^\circ\text{C}$		0.52	0.55	V

*Pulse test: pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2.0\%$.

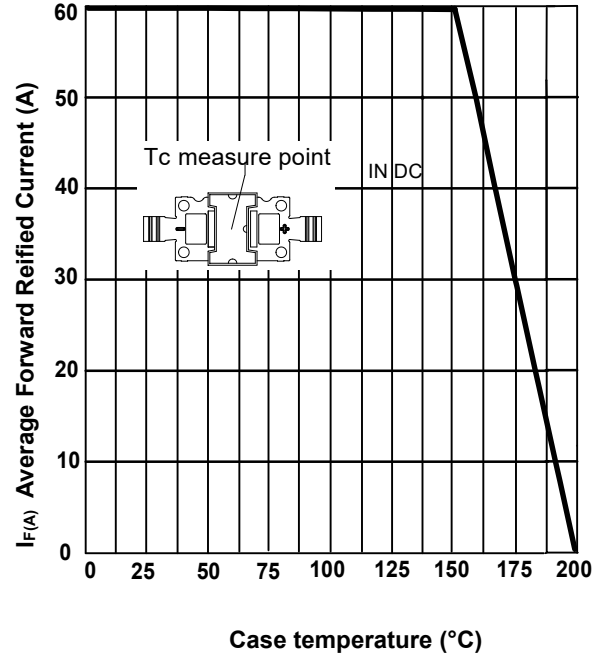
CURRENT 50 Ampere
 VOLTAGE RANG 50 Volts

GMK5050

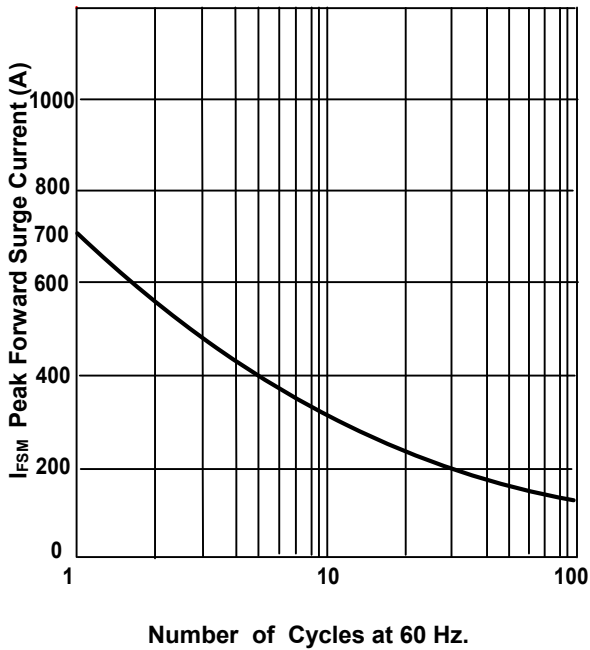
TYPICAL FORWARD CHARACTERISTIC



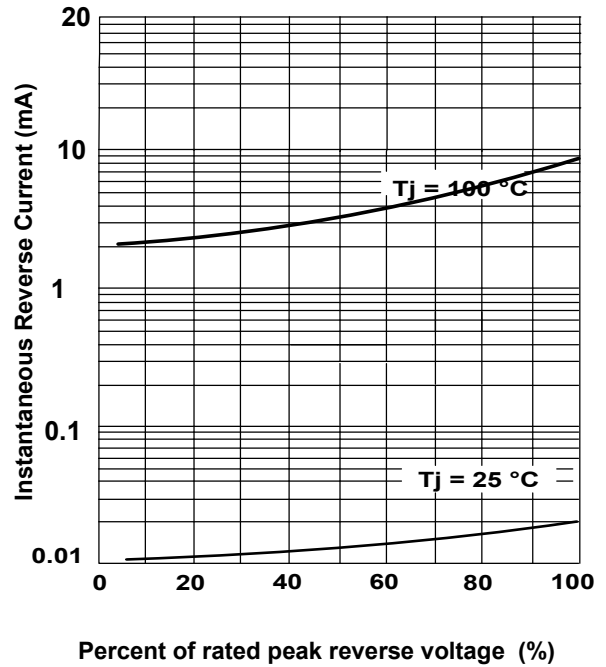
FORWARD CURRENT DERATING CURVE



MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT

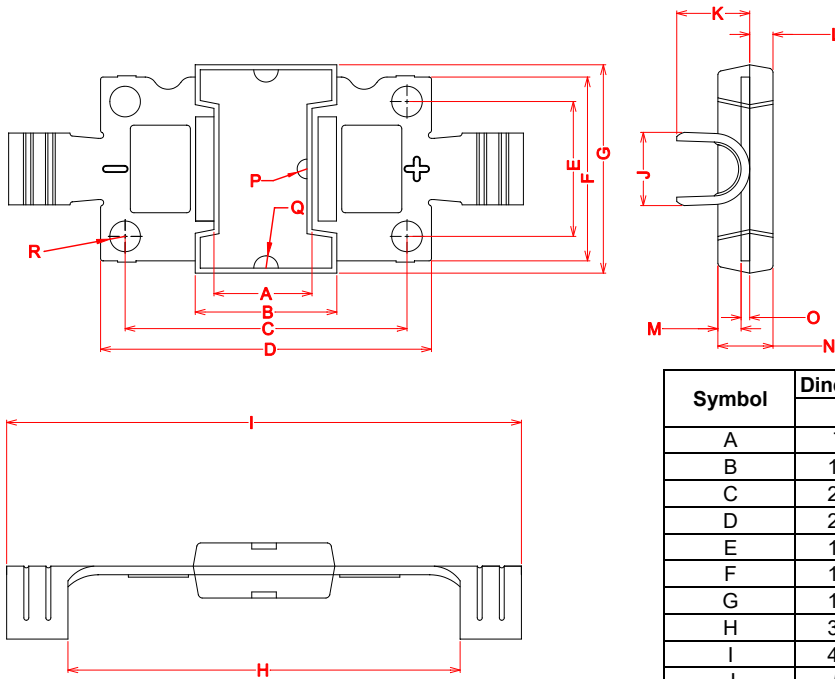


MAXIMUM NON REPETITIVE SURGE CURRENT



CURRENT 50 Ampere
 VOLTAGE RANG 50 Volts

GMK5050



Symbol	Dinemsions In Millimeters		Dinemsions In Inches	
	Min	Max	Min	Max
A	7.800	8.200	0.307	0.323
B	11.350	11.750	0.447	0.463
C	22.500	23.500	0.886	0.925
D	26.500	27.500	1.043	1.083
E	10.500	11.500	0.413	0.453
F	14.500	15.500	0.571	0.610
G	16.500	17.500	0.650	0.689
H	31.500	32.500	1.240	1.280
I	41.500	42.500	1.634	1.673
J	5.700	6.300	0.224	0.248
K	5.750	6.150	0.226	0.242
L	1.700	2.100	0.067	0.083
M	1.700	2.100	0.067	0.083
N	4.300	4.700	0.169	0.185
O	0.600	0.800	0.024	0.031
P	0.800 TYP		0.031 TYP	
Q	1.000 TYP		0.039 TYP	
R	1.250 TYP		0.049 TYP	

Ordering Information

PREFERED P/N	TUBE(pcs)	CARTON(pcs)
GMK5050	30	1500