CTK®

东莞市通科电子有限公司
DongGuan Tongke Electronic Co.,LTD

MB1F THRU MB10F

0.8A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

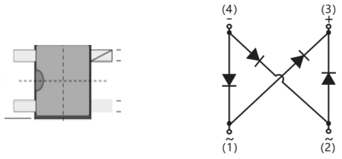
FEATURES:

Glass Passivated Chip Junction
Reverse Voltage - 100 to 1000 V
Forward Current - 0.8 A

High Surge Current Capability
Designed for Surface Mount Application

PINNING

PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)



MFPackage

MECHANICAL DATA

- Case: MBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 75mg/0.0026oz

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @ Fig.1	$I_{F(AV)}$	0.8						A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30						A
Peak Forward Surge Current,1.0ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	60						A
I^2t Rating for fusing (3ms≤t≤8.3ms)	I^2t	3.7						A^2S
Max Instantaneous Forward Voltage at 0.8 A	V_F	1.1						V
Maximum DC Reverse Current at Rated DC Reverse Voltage T_a = 25°C T_a =125°C	I_R	5 40						µA
Typical Junction Capacitance (1)	C_j	7						pF
Typical Thermal Resistance (2)	$R_{\theta JA}$ $R_{\theta JC}$ $R_{\theta JL}$	45 15 25						°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						°C

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C
(2) Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81 ×3.81 cm) copper pad.

Fig.1 Average Rectified Output Current Derating Curve

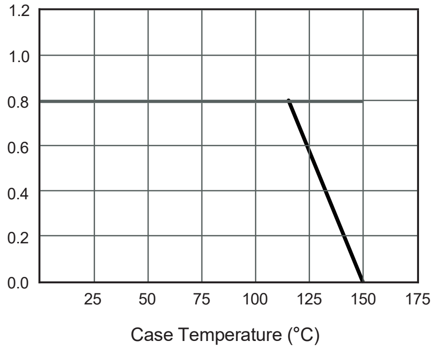


Fig.2 Typical Reverse Characteristics

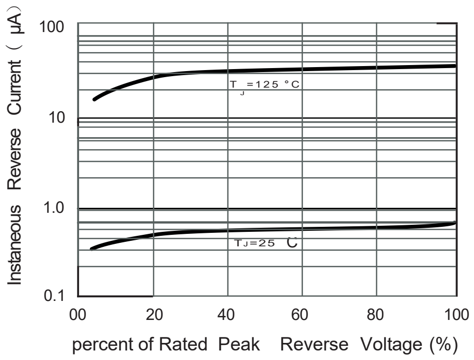


Fig.3 Typical Instaneous Forward Characteristics

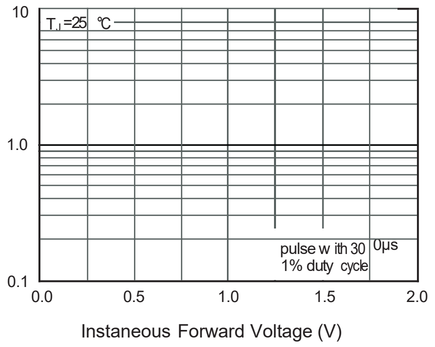


Fig.4 Typical Junction Capacitance

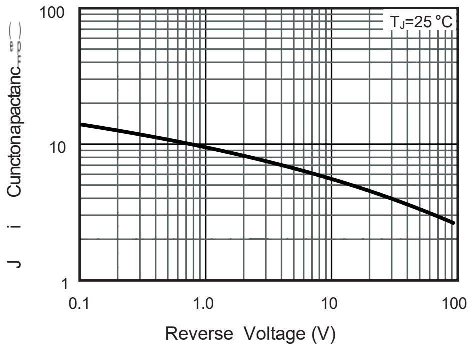
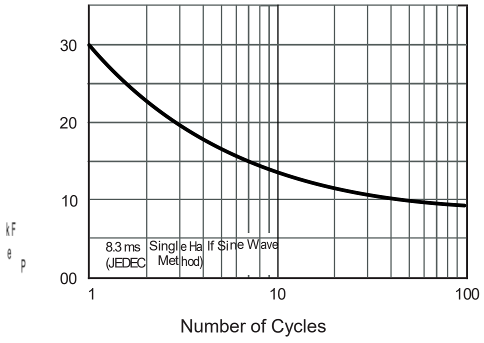
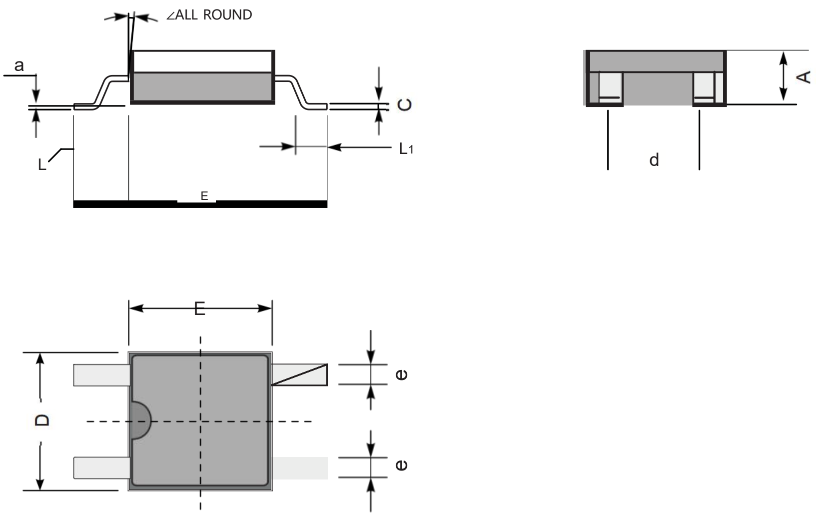


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

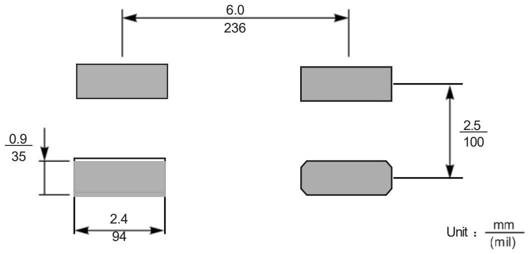
Plastic surface mounted package; 4 leads



MBF mechanical data

UNIT		A	C	D	E	H_E	d	e	L	L_1	a	∠
mm	max	1.6	0.25	3.95	4.1	7.0	2.7	0.8	1.7	1.1	0.2	7°
	min	1.2	0.15	3.45	3.6	6.4	2.3	0.5	1.3	0.5	—	
mil	max	63	9.8	156	161	276	106	31	67	43	8	
	min	47	5.9	136	142	252	91	20	51	20	—	

The recommended mounting pad size



Marking

Type number	Marking code
MB1F	MB1F
MB2F	MB2F
MB4F	MB4F
MB6F	MB6F
MB8F	MB8F
MB10F	MB10F