UMB1F-10~~UMB10F-10
SURFACE MOUNT BRIDGE RECTIFIERS

FEATURES

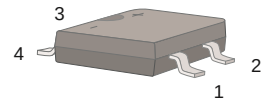
- **For surface mount applications**
- **Glass passivated chip junction**
- **Ultrafast reverse recovery time**

PINNING

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

MECHANICAL DATA

- **Case: MBF molded plastic body**
- **Terminals: Solderable per MIL-STD-750 ， Method 2026**
- **Weight: Approximated 0.075 grams**



MBF Package

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

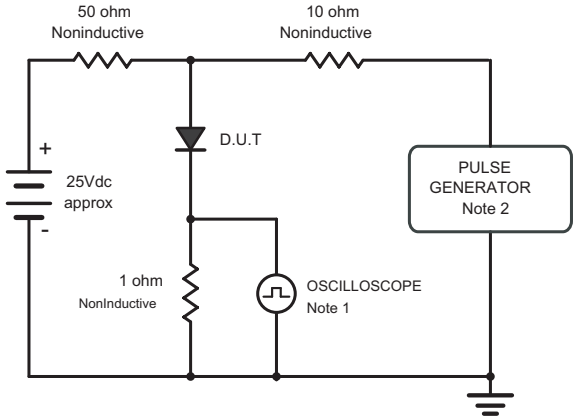
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derating by 20 %.

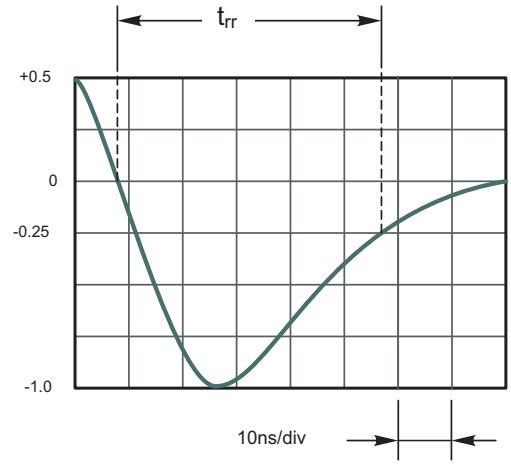
PARAMETER	SYMBOL	UMB1F -10	UMB2F -10	UMB4F -10	UMB6F -10	UMB8F -10	UMB10F -10	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T_C=125℃	$I_{F(AV)}$	1.0						A
Peak Forward Surge Current (Note1)	I_{FSM}	35						A
Maximum Forward Voltage at 1.0A	V_F	1.0		1.3	1.5			V
Maximum DC Reverse Current at Rated DC Blocking Voltage at T_A=25℃ / T_A=125℃	I_R	5.0 / 100						uA
Typical Junction Capacitance (Note2)	C_J	18						pF
Maximum Reverse Recovery Time (Note3)	T_{rr}	50			75			nS
Typical Thermal Resistance (Note4)	$R_{\theta JA}$ / $R_{\theta JC}$	80 / 25						℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to +150						℃

Notes:1. Measured at 8.3 ms single half sine wave superimposed on rated load (JEDEC Method).
2. Measured at 1MHz and applied reverse voltage of 4 V D.V.
3. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.
4. Mounted on 1.5" X 1.5" (3.81 X 3.81 cm) copper pad areas.

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Reverse Recovery Time Characteristic and Test Circuit Diagram





Set time Base for 10ns/div

Note：1. Rise Time = 7ns, max.
Input Impedance = 1megohm,22pF.
2. ies Time =10ns, max.
Source Impedance = 50 ohms.

Fig.2 Maximum Average Forward Current Rating

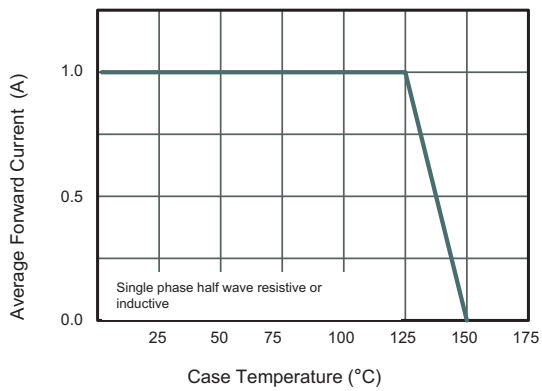


Fig.3 Typical Reverse Characteristics

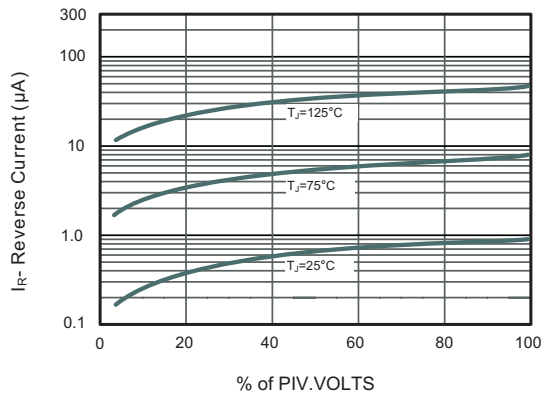


Fig.3 Typical Instaneous Forward Characteristics

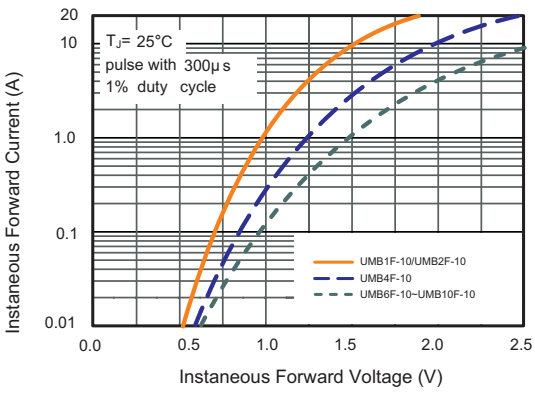
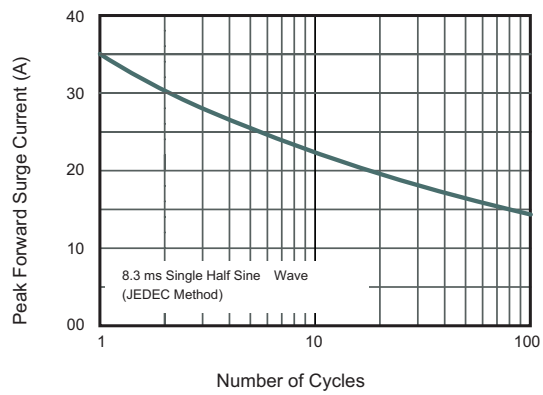
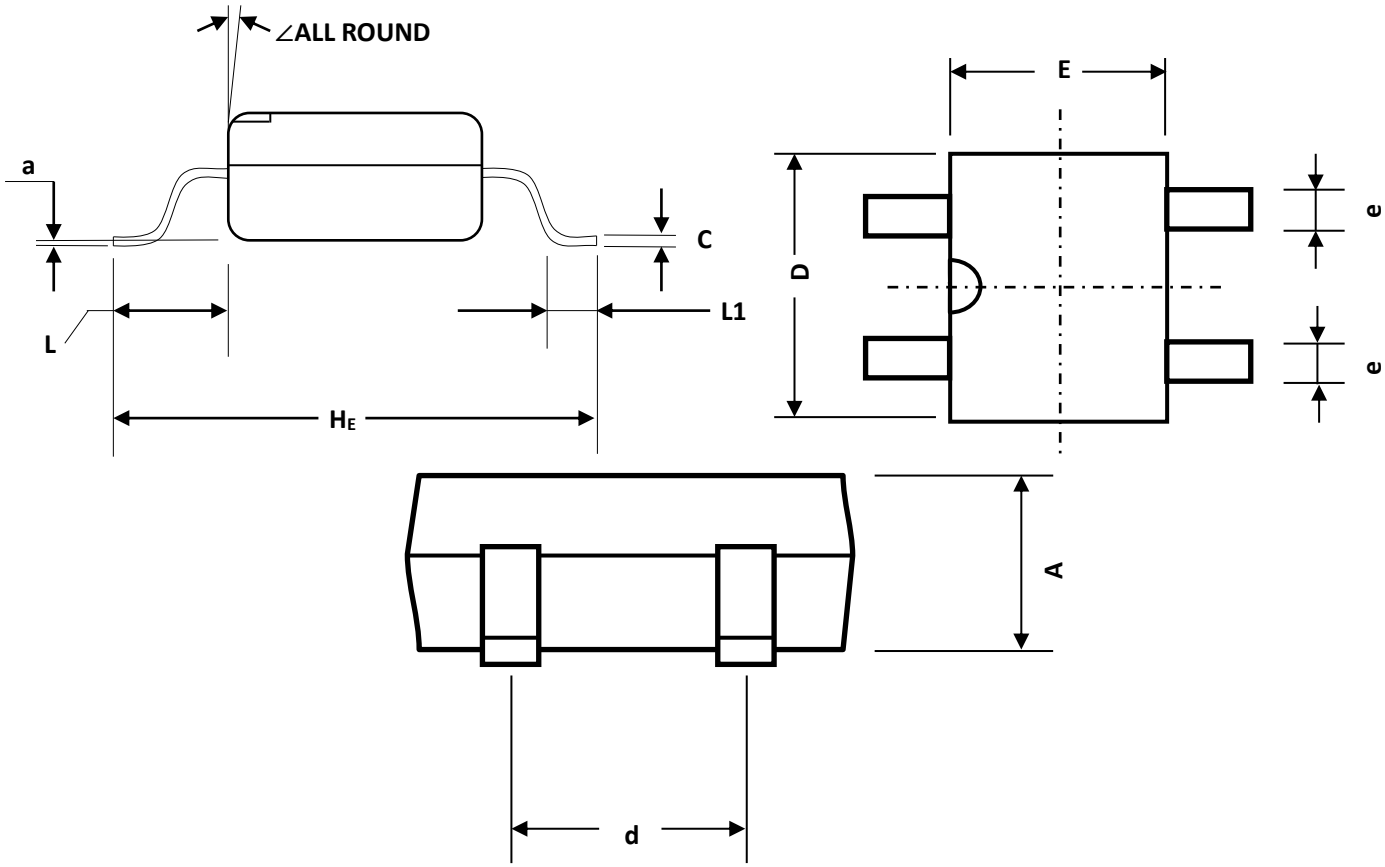


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE

MBF



MBF mechanical data

UNIT		A	C	D	E	H_E	d	e	L	L_1	a	∠
mm	max	1.6	0.22	5.0	4.1	7.0	2.7	0.8	1.7	1.1	0.2	7°
	min	1.2	0.15	4.5	3.6	6.4	2.3	0.5	1.3	0.5	—	
mil	max	63	8.7	197	161	276	106	31	67	43	8	
	min	47	5.9	177	142	252	91	20	51	20	—	

ORDERING INFORMATION

Device	Package	Shipping
UMB1F-10 thru UMB10F-10	MBF	3,000/Tape & Reel (11 inches)
		5,000/ Tape & Reel (13 inches)