LITE-ON SEMICONDUCTOR

MB10F

GLASS PASSIVATED SURFACE MOUNT BRIDGE RECTIFIER

REVERSE VOLTAGE – 1000 Volts
FORWARD CURRENT – 1 Ampere

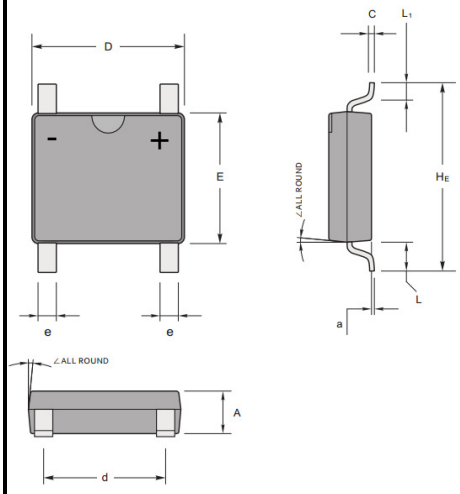
FEATURES

- Glass Passivated Chip Juntion
- Reverse Voltage – 1000 V
- Forward Current – 1 A
- High Surge Current Capability
- Designed for Surface Mount Application

MECHANICAL DATA

- Case Material: MBF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Weight: 75 mg (Approximate)
- Marking: MB10F

MBF



MBF		
DIM	MIN	MAX
A	1.20	1.60
C	0.15	0.22
D	4.50	5.00
E	3.60	4.10
HE	6.40	7.00
d	2.30	2.70
e	0.50	0.70
L	1.30	1.70
L1	0.50	1.10
a	-	0.2
∠	7° TYP.	
All dimension in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	1000	V
Maximum DC blocking voltage	V_{DC}	1000	V
Average rectified output current per device	$I_{(AV)}$	1	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load @ T_A=25°C	I_{FSM}	30	A
Operating and storage temperature range	T_J ,T_{STG}	-55 to +150	°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITION		SYMBOL	MAX.	UNIT
Forward voltage (Note1)	I_F = 1A	T_A = 25°C	V_F	1.1	V
Leakage current	V_R = 1000V	T_A = 25°C T_A = 125°C (Note1)	I_R	5 500	uA
Typical junction capacitance (Note 2)			C_J	13	pF

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	TYP.	UNIT
Typical thermal resistance (Note 3)	$RthJ_C$ $RthJ_A$ $RthJ_L$	50 80 45	°C/W

Note :

(1) Perform static test after the temperature of oven is steady 20 minutes.
(2) Measured at 1.0MHz and applied reverse voltage of 4.0V DC
(3) Thermal resistance junction to case, lead and ambient in accordance with JESD-51.
Unit mounted on glass-epoxy PC board with 2.7 X 3.7mm$_2$ copper pad per pin

REV.1, Aug.-2016,KBD49

RATING AND CHARACTERISTIC CURVES
MB10F

FIG.1- FORWARD CURRENT DERATING CURVE

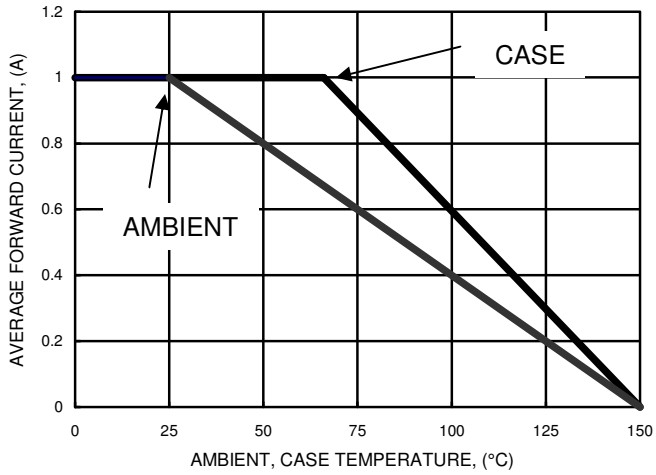


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

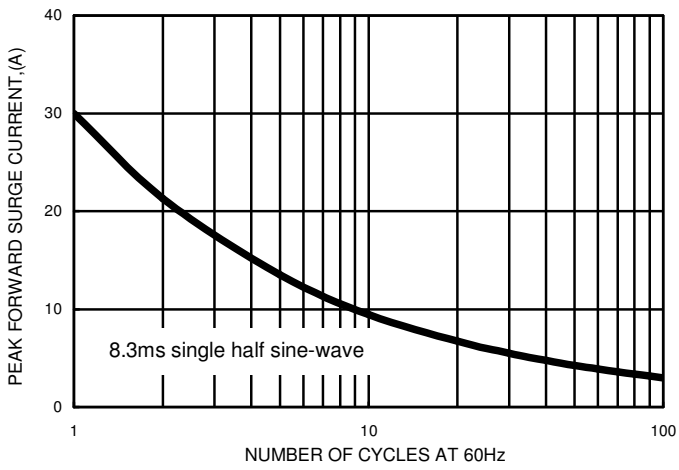


FIG.3- TYPICAL FORWORD CHARACTERISTICS

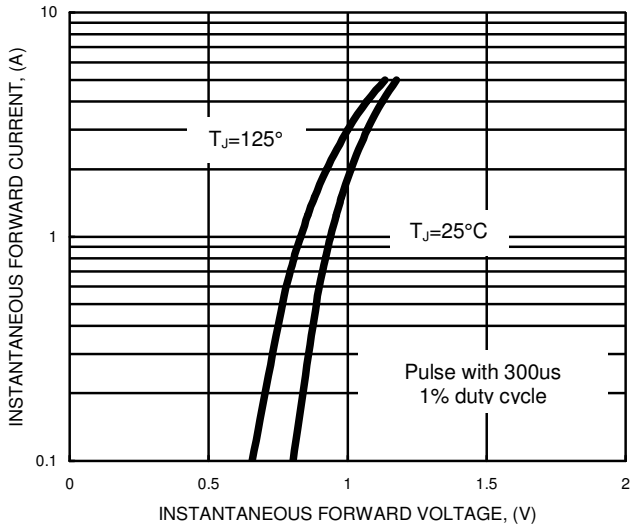


FIG.4- TYPICAL JUNCTION CAPACITANCE

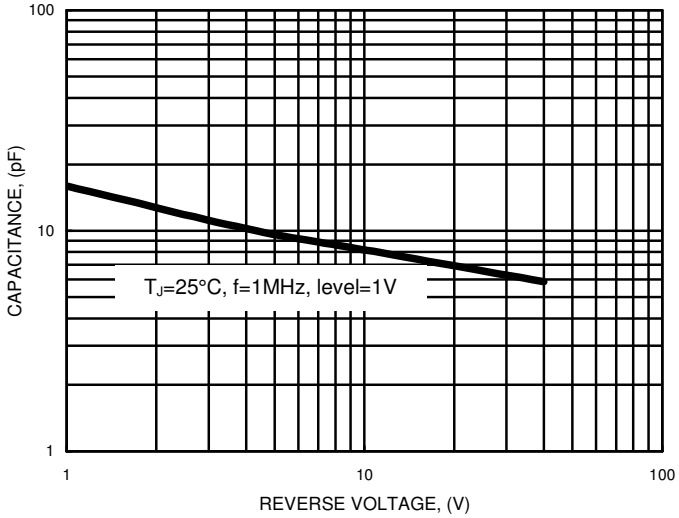
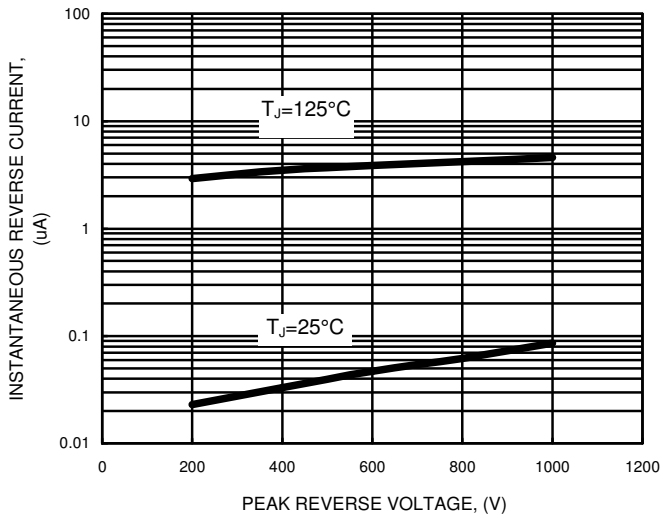


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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