

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Glass Passivated Chip Junction
- High Surge Current Capability
- Designed for Surface Mount Application

MECHANICAL DATA

- Case: UMSB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Mounting position: Any

UMSB



MARKING

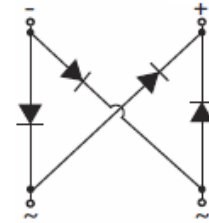
Part Number	Marking
MSB401S-C~MSB410S-C	MB40M

PACKAGE INFORMATION

Package	MPQ	Leader Size
UMSB	3K	13 inch

ORDER INFORMATION

Part Number	Type
MSB401S-C~MSB410S-C	Lead (Pb)-free and Halogen-free



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter	Symbol	Part Number						Unit
		MSB 401S	MSB 402S	MSB 404S	MSB 406S	MSB 408S	MSB 410S	
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	
Maximum DC Blocking Voltage	V_{DC}	100	200	400	600	800	1000	
Average Rectified Output Current	I_O	4						A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	95						A
Maximum Forward Voltage @ $I_F=4A$	V_F	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}C$	5						μA
	$T_A=125^{\circ}C$	100						
Typical Junction Capacitance ¹	C_J	50						pF
Typical Thermal Resistance ²	$R_{\theta JA}$	60						$^{\circ}C/W$
	$R_{\theta JC}$	10						
	$R_{\theta JL}$	25						
Operating & Storage Temperature Range	T_J, T_{STG}	-55~150						$^{\circ}C$

Notes:

1. Measured at 1MHz and applied reverse voltage of 4V D.C.
2. Mounted on glass epoxy PC board with 4x1.5"x1.5" (3.81x3.81cm) copper pad.

RATINGS AND CHARACTERISTIC CURVES

Fig.1 Average Rectified Output Current Derating Curve

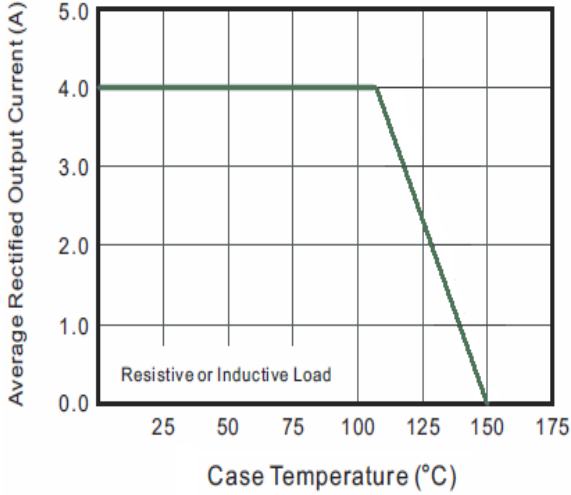


Fig.2 Typical Reverse Characteristics

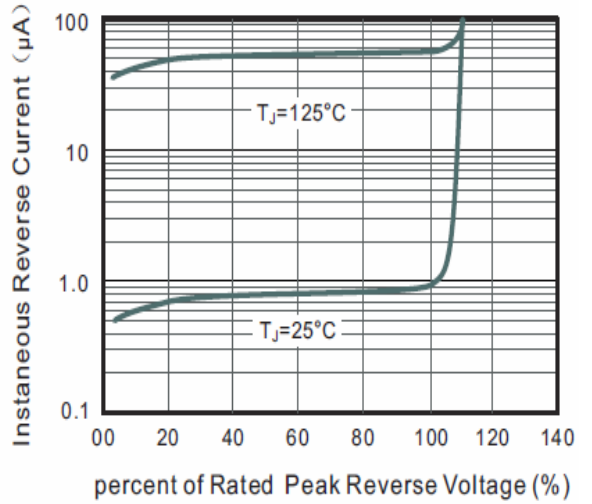


Fig.3 Typical Instantaneous Forward Characteristics

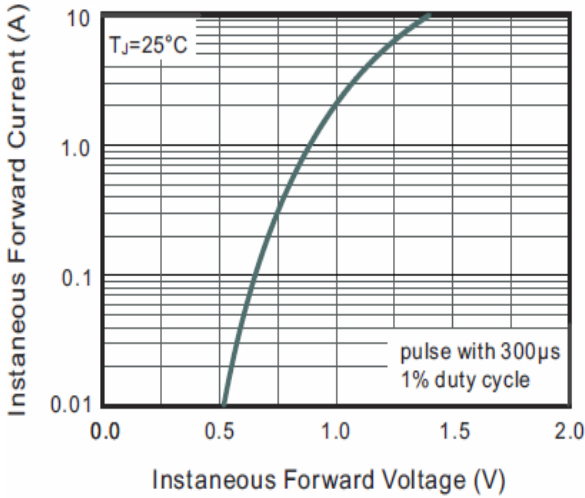


Fig.4 Typical Junction Capacitance

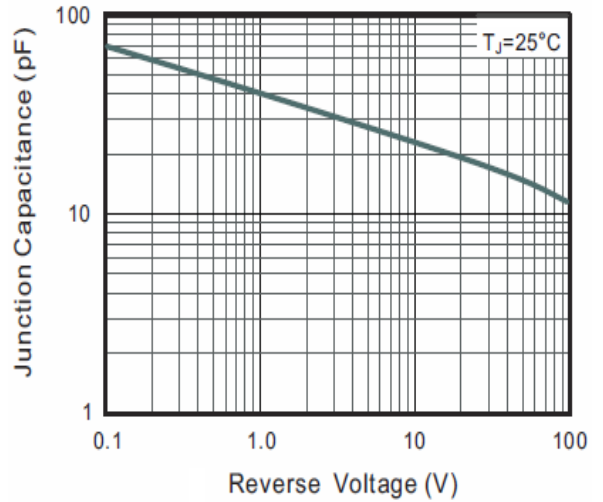


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

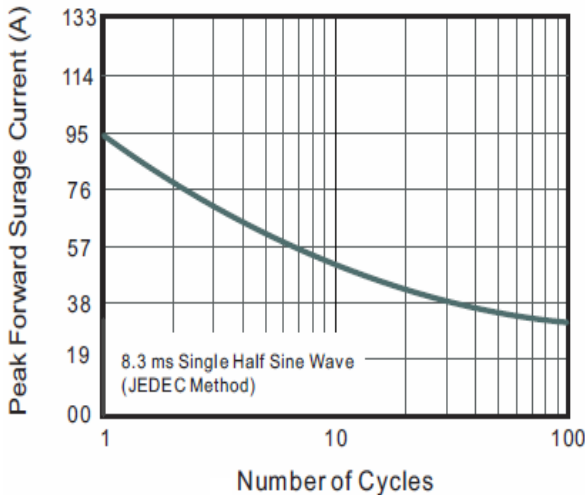
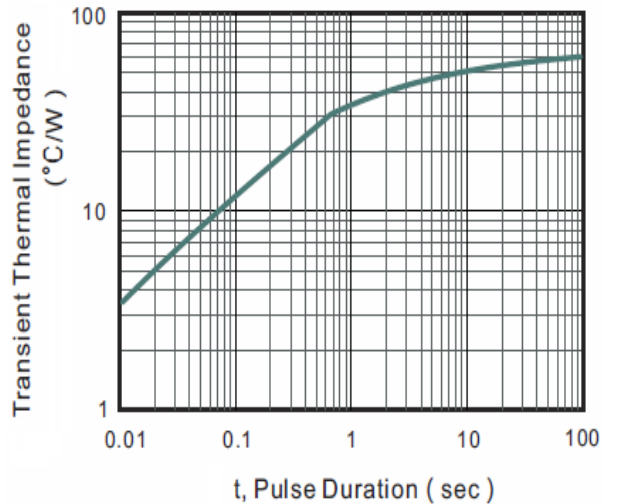
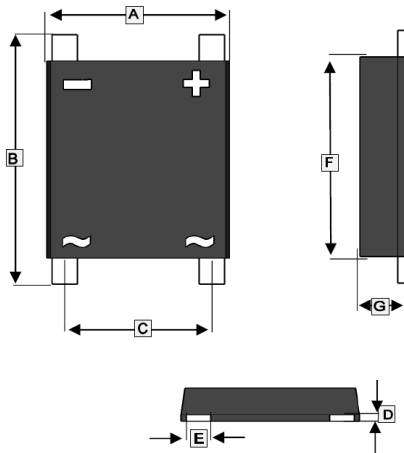


Fig.6- Typical Transient Thermal Impedance



PACKAGE OUTLINE DIMENSIONS

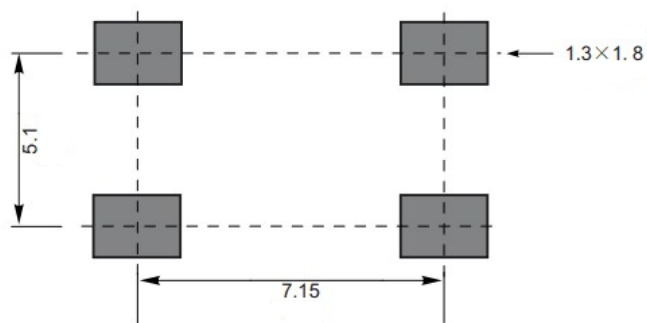
UMSB



REF.	Millimeter	
	Min.	Max.
A	6.2	7.0
B	8.4	8.9
C	4.9	5.3
D	0.15	0.3
E	0.9	1.2
F	7.1	7.6
G	1.3	1.5

MOUNTING PAD LAYOUT

UMSB



*Dimensions in millimeters