Elektronische Bauelemente

MSB301S-C~MSB310S-C

Voltage 100V~1000V

3.0 Amp Surface Mount Bridge Rectifiers

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

UMSB

MECHANICAL DATA

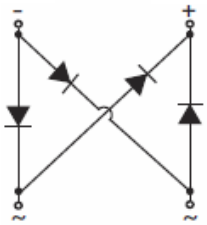
- Case: UMSB
- Terminals: Solderable per MIL-STD-750, Method 2026
- Mounting position: Any

MARKING

Part Number	Marking
MSB301S-C~MSB310S-C	MB30M

PACKAGE INFORMATION

Package	MPQ	Leader Size
UMSB	3K	13 inch



ORDER INFORMATION

Part Number	Type
MSB301S-C~ MSB310S-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 301S-C	MSB 302S-C	MSB 304S-C	MSB 306S-C	MSB 308S-C	MSB 310S-C	
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	3						A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)		I_{FSM}	80						A
Maximum Forward Voltage @I_F=3A		V_F	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A=25°C	I_R	5						μA
	T_A=125°C		100						
Typical Junction Capacitance [1]		C_J	40						pF
Typical Thermal Resistance [2]		$R_{\theta JA}$	60						°C/W
		$R_{\theta JC}$	10						
		$R_{\theta JL}$	25						
Operating & Storage Temperature Range		T_J, T_{STG}	-55~150						°C

Notes:

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

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RATINGS AND CHARACTERISTIC CURVES

Fig.1 Average Rectified Output Current Derating Curve

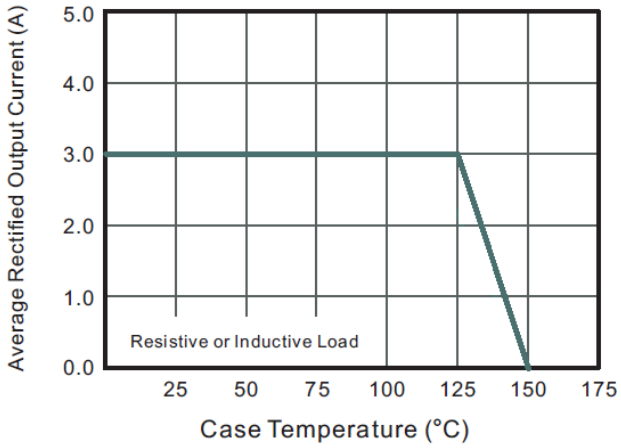


Fig.2 Typical Reverse Characteristics

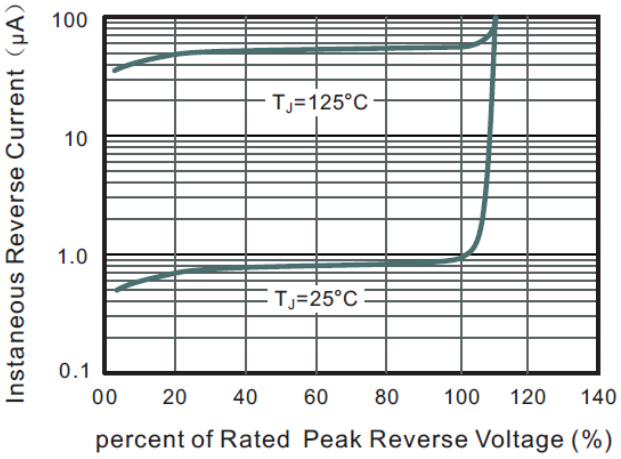


Fig.3 Typical Instaneous Forward Characteristics

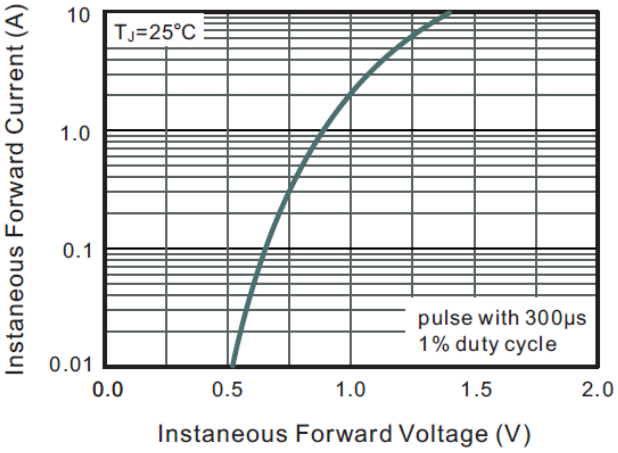


Fig.4 Typical Junction Capacitance

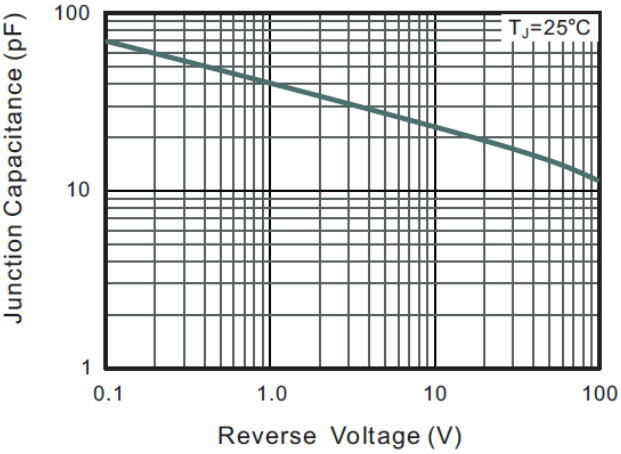


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current

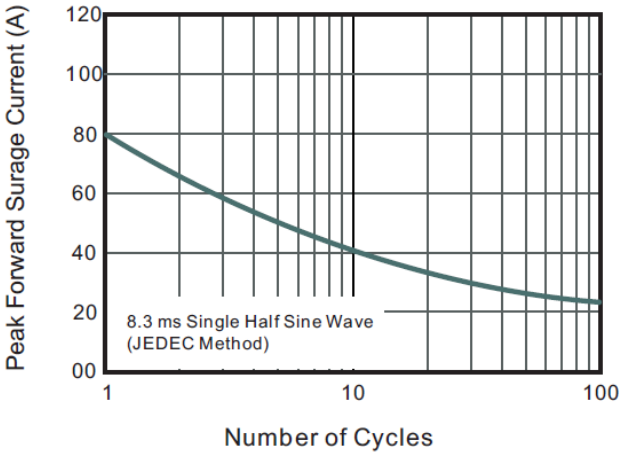
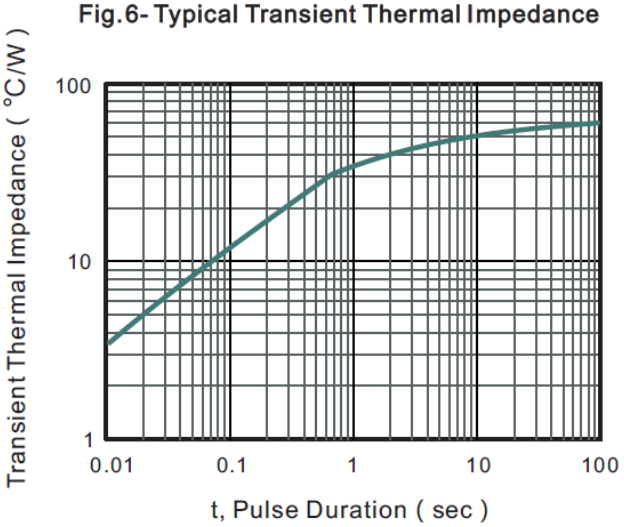
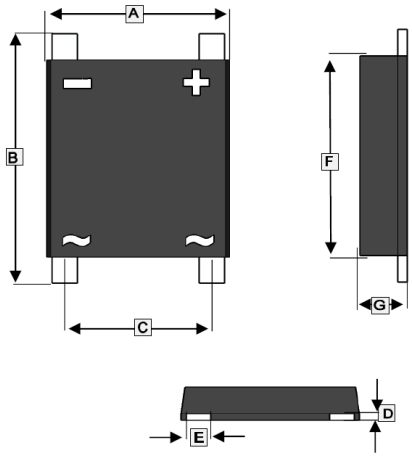


Fig.6- Typical Transient Thermal Impedance



PACKAGE OUTLINE DIMENSIONS

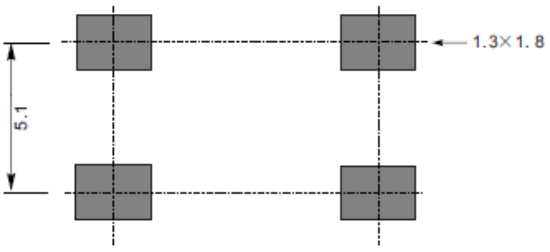
UMSB



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