KMB12S THRU KMB125S

SINGLE PHASE 1.0 AMP SURFACE MOUNT SCHOTTKY BRIDGE RECTIFIER

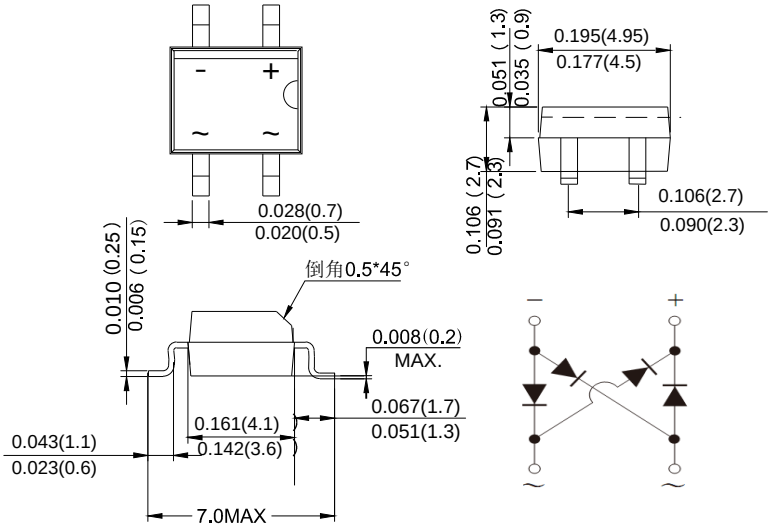
Features

- Schottky Brrier Chip
- Low Power Loss,High Efficiency
- Ideally Suited for Automatic Assembly
- Surge Overload Rating to 30A Peak
- Plastic Case Material has UL Flammability Classification Rating 94V-0

Mechanical Data

- Case: MB-S, molded plastic
- Terminals: plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting position: Any
- Marking: type number
- Lead Free: For RoHS / Lead Free Version,

MBS



dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	KMB 12S	KMB 13S	KMB 14S	KMB 145S	KMB 15S	KMB 16S	KMB 18S	KMB 110S	KMB 115S	KMB 120S	KMB 125S	UNITS
Peak Repetitive Reverse Voltage	V_{RRM}	20	30	40	45	50	60	80	100	150	200	250	
RMS Reverse Voltage	$V_{R(RMS)}$	14	21	28	31	35	42	56	70	105	140	175	V
DC Blocking Voltage	V_{DC}	20	30	40	45	50	60	80	100	150	200	250	
Average Rectified Output Current (Note1) @T_C = 100°C	IF(AV)	1.0											A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30											A
I^2t Rating for Fusing (t < 8.3ms)	I^2t	3.735											A^2s
Forward Voltage per element @I_F =1.0AV	V_{FM}	0.55				0.7		0.85		0.90		0.92	V
Peak Reverse Current @T_A = 25°C	I_{RM}	0.1						0.05					mA
At Rated DC Blocking Voltage @T_A = 100°C		10						5					
Typical Junction Capacitance per leg	C_J	28											pF
Typical Thermal Resistance per leg (Note2)	$R_{\theta JL}$	16											°C/W
Operating junction temperature range	T_J	-55 to +150											°C
Operating and Storage Temperature Range	T_{STG}	-55 to +150											°C

Note:

1. Mounted on aluminum substrate PC board with 1.3mm^2 solder pad.
2. Thermal REsistance From Junction to LEAD

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FIG. 1- FORWARD CURRENT DERATING CURVE

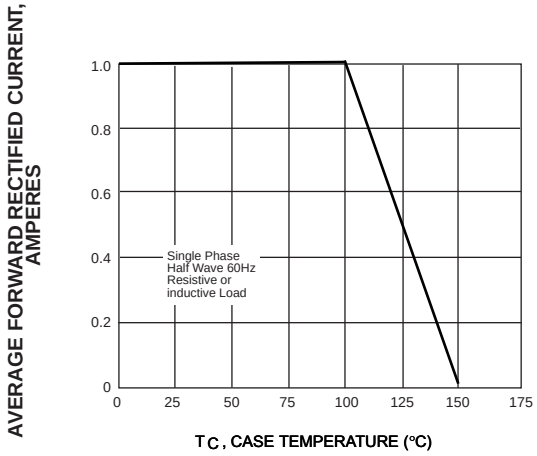


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

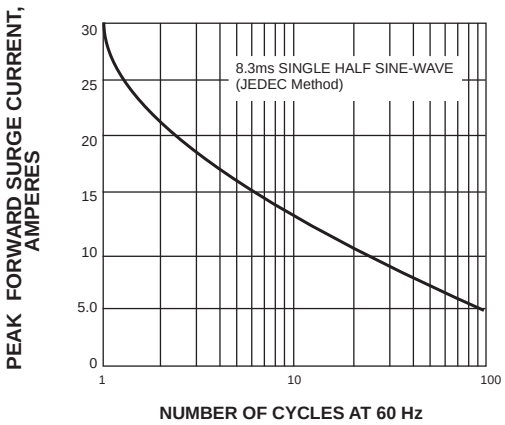


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

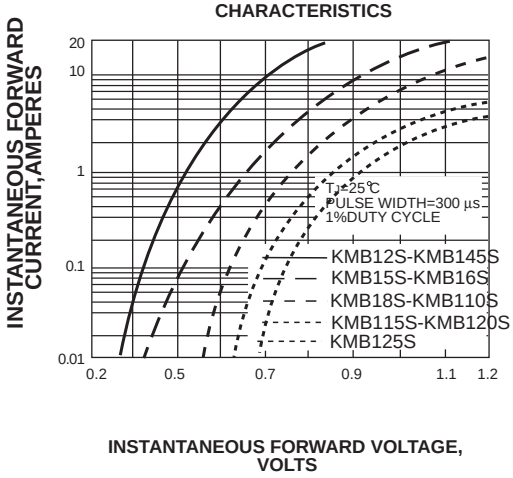


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

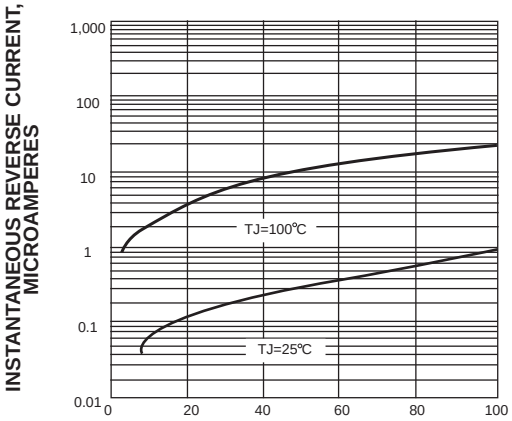


FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE

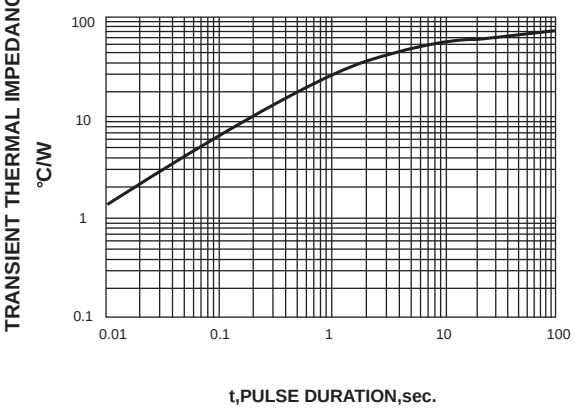
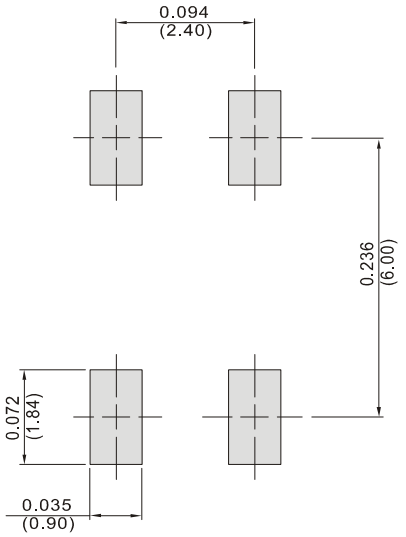


FIG.6 MOUNTING PAD LAYOUT



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