Technical Data
Data Sheet N1952, Rev. A

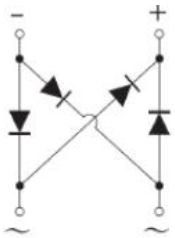
KMB22S THRU KMB225S
SINGLE PHASE 2.0 AMP SURFACE MOUNT SCHOTTKY BRIDGE RECTIFIER

MB-S

Features

- **Schottky Brrier Chip**
- **Low Power Loss,High Efficiency**
- **Ideally Suited for Automatic Assembly**
- **Surge Overload Rating to 50A Peak**
- **Plastic Case Material has UL Flammability Classification 94V-0**
- **This is a Pb − Free Device**
- **All SMC parts are traceable to the wafer lot**
- **Additional testing can be offered upon request**

Circuit Diagram



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**
- **Lead Free: For RoHS / Lead Free Version**

Maximum Ratings:

Type Number	Symbol	KMB 22S	KMB 23S	KMB 24S	KMB 245S	KMB 25S	KMB 26S	KMB 28S	KMB 210S	KMB 215S	KMB 220S	KMB 225S	Unit
Peak Repetitive Reverse Voltage DC Blocking Voltage	V_{RRM} V_{DC}	20	30	40	45	50	60	80	100	150	200	250	V
RMS Voltage	V_{RMS}	14	21	28	31	35	42	56	70	105	140	175	V
Average Rectified Output Current (Note1)@T_C=100℃	I_O	2.0											A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50											A
I^2t Rating for fusing (t <8.3ms)	I^2t	10.375											A^2s

Note: KMB225S not recommend to new design.

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Electrical Characteristics:

Type Number	Symbol	KMB 22S	KMB 23S	KMB 24S	KMB 245S	KMB 25S	KMB 26S	KMB 28S	KMB 210S	KMB 215S	KMB 220S	KMB 225S	Unit
Forward Voltage (per element) @I_F =2A, T_A = 25°C	V_F	0.55				0.70		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) (Note 2)	C_J	28											pF

* Pulse width < 300 μs, duty cycle < 2%

Thermal-Mechanical Specifications:

Type Number	Symbol	KMB 22S	KMB 23S	KMB 24S	KMB 245S	KMB 25S	KMB 26S	KMB 28S	KMB 210S	KMB 215S	KMB 220S	KMB 225S	Unit
Typical Thermal Resistance (per leg) (Note 3)	$R_{\theta JL}$	16											°C/W
Operating junction temperature range	T_J	-55 to +150											°C
Storage Temperature Range	T_{STG}	-55 to +150											°C

Note: 1. Mounted on glass epoxy PC board with 1.3mm² solder pad.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
3. Thermal REsistance From Junction to Lead.

Ratings and Characteristics Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

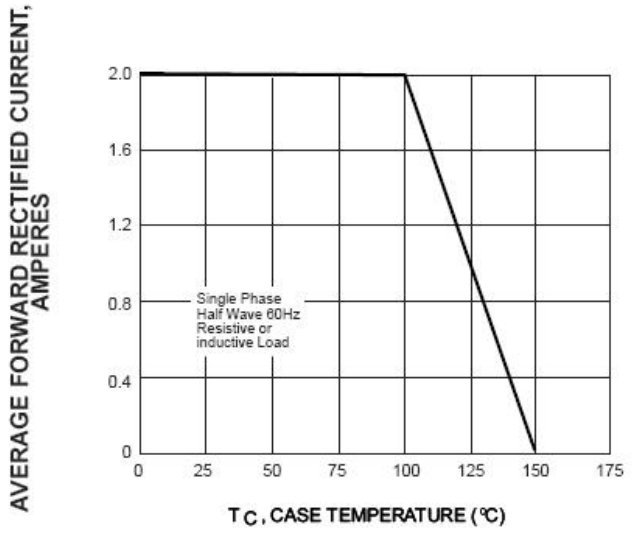


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

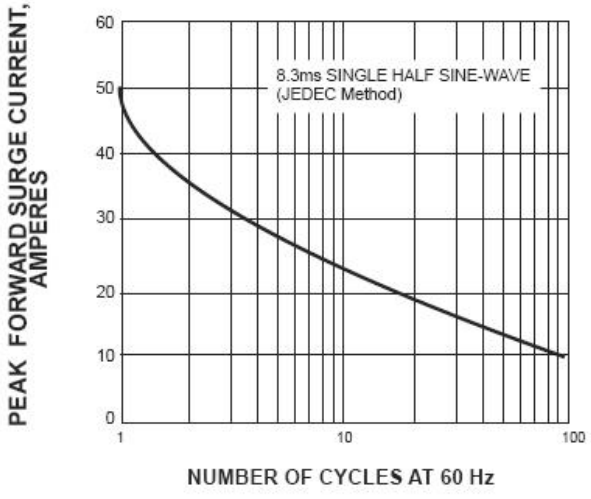
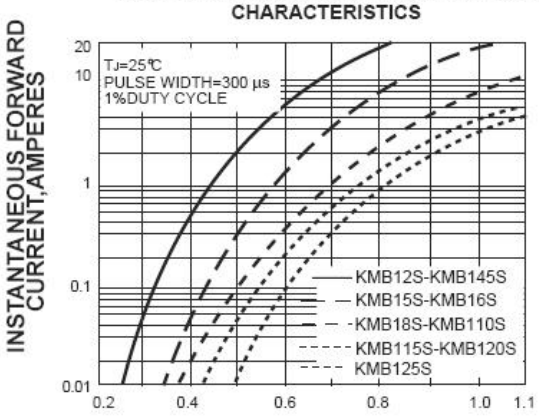
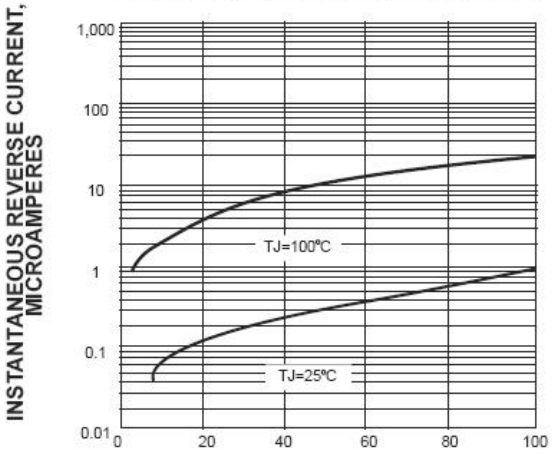


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



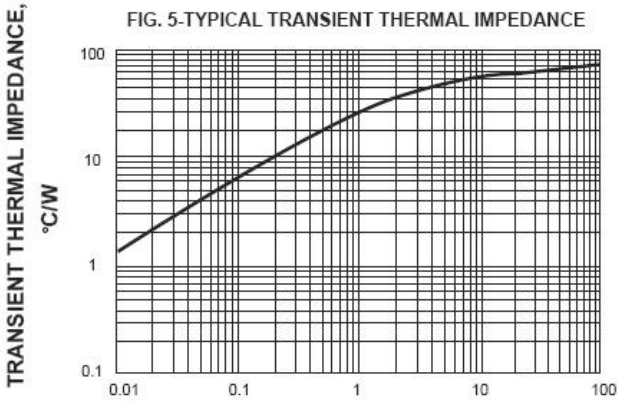
INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



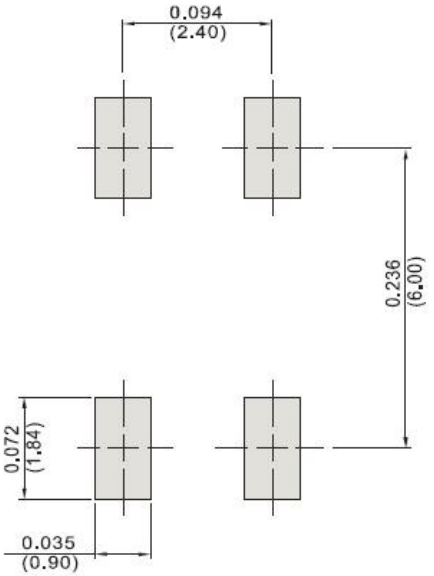
PERCENT OF PEAK REVERSE VOLTAGE,%

FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE



t,PULSE DURATION,sec.

FIG.6 MOUNTING PAD LAYOUT(mm/Inches)



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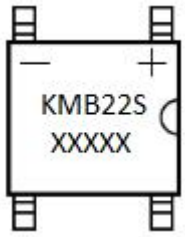
Ordering Information

Device	Package	Plating	Shipping
KMB22S THRU KMB225S	MB-S (Pb-Free)	Pure Sn	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram

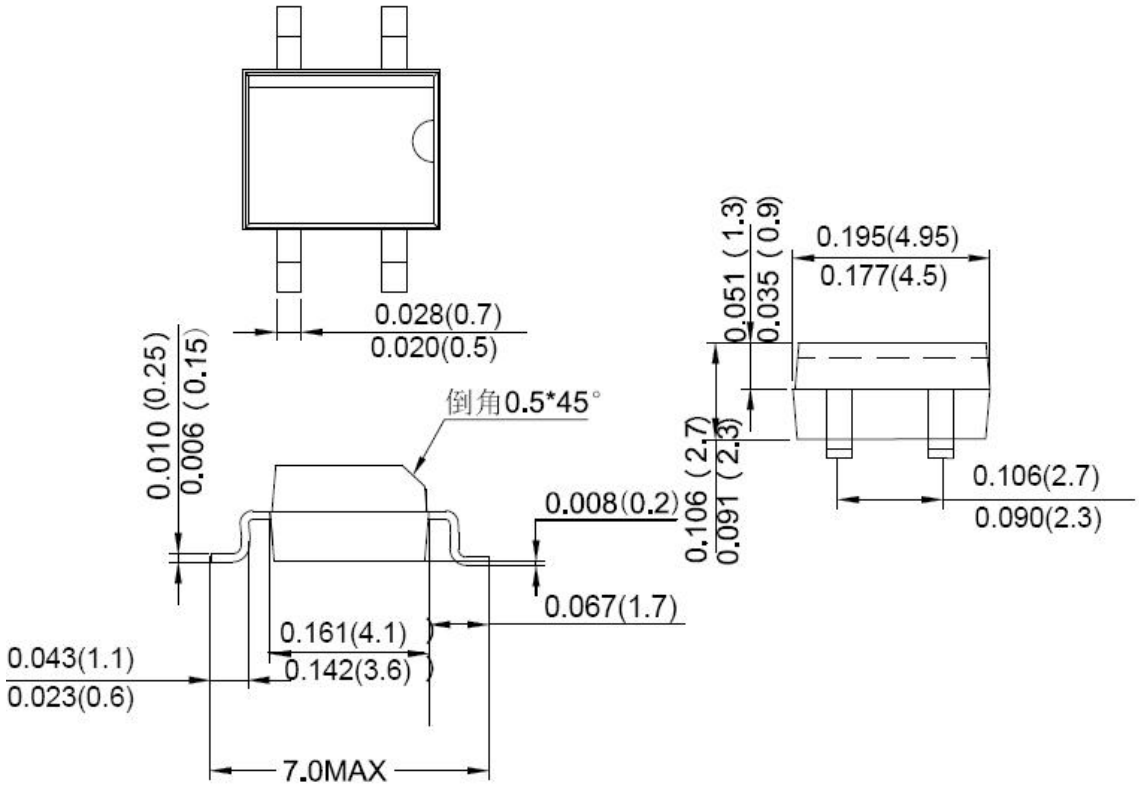


Where XXXXX is YYWWL

KMB22S = Type Number
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Mechanical Dimensions MB-S(Inches/Millimeters)



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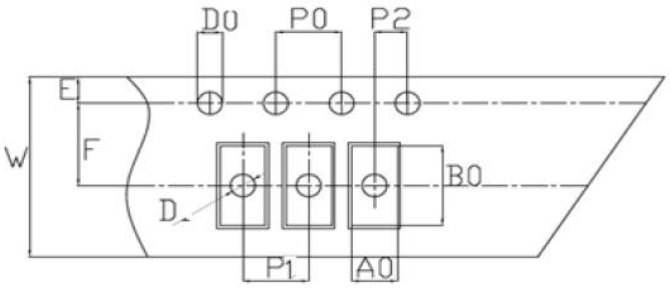
Carrier Tape Specification MB-S



SYMBOL	Millimeters	
	Min.	Max.
A0	4.92	5.12
B0	7.12	7.32
D0	1.50	1.60
D1	1.40	1.60
P0	3.90	4.10
P1	7.90	8.10
P2	1.95	2.05
E	1.65	1.85
K0	2.78	2.98
F	5.45	5.55
W	11.90	12.10
T	0.24	0.30
10P0	39.80	40.20
抗拉拉力	≥3KG	