

KMB22S THRU KMB220S SINGLE PHASE 2.0 AMP SURFACE MOUNT SCHOTTKY BRIDGE RECTIFIER

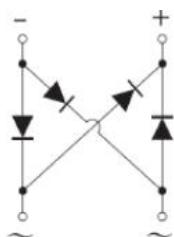


MB-S

Features

- Schottky Brier 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:@ $T_A=25^\circ\text{C}$ unless otherwise specified

Type Number	Symbol	KMB 22S	KMB 23S	KMB 24S	KMB 245S	KMB 25S	KMB 26S	KMB 28S	KMB 210S	KMB 215S	KMB 220S	Unit
Peak Repetitive Reverse Voltage DC Blocking Voltage	V_{RRM} V_{DC}	20	30	40	45	50	60	80	100	150	200	V
RMS Voltage	V_{RMS}	14	21	28	31	35	42	56	70	105	140	V
Average Rectified Output Current (Note1)@ $T_c=100^\circ\text{C}$	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 ($t < 8.3\text{ms}$)	I^2t							10.375				A^2s

Electrical Characteristics:@ $T_A=25^\circ\text{C}$ unless otherwise specified

Type Number	Symbol	KMB 22S	KMB 23S	KMB 24S	KMB 245S	KMB 25S	KMB 26S	KMB 28S	KMB 210S	KMB 215S	KMB 220S	Unit
Forward Voltage (per element) @ $I_F = 2\text{A}$, $T_A = 25^\circ\text{C}$	V_F		0.55			0.70		0.85		0.90		V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_{RM}			0.1				0.05				mA
					10				5			
Typical Junction Capacitance (per leg) (Note 2)	C_J		190		150			95				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	Unit
Typical Thermal Resistance (per leg) (Note 3)	R_{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

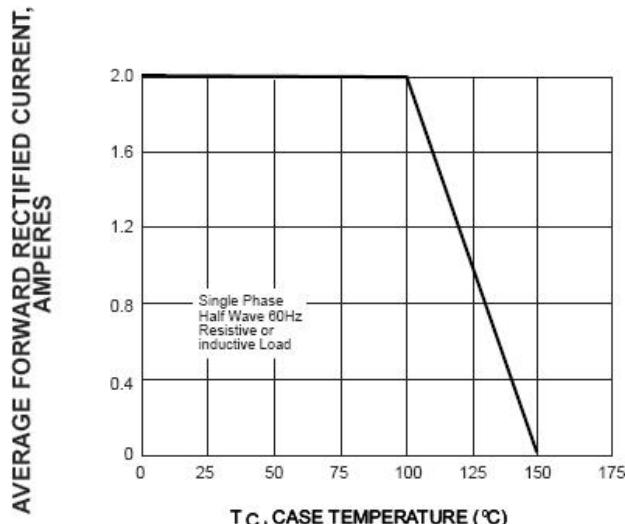
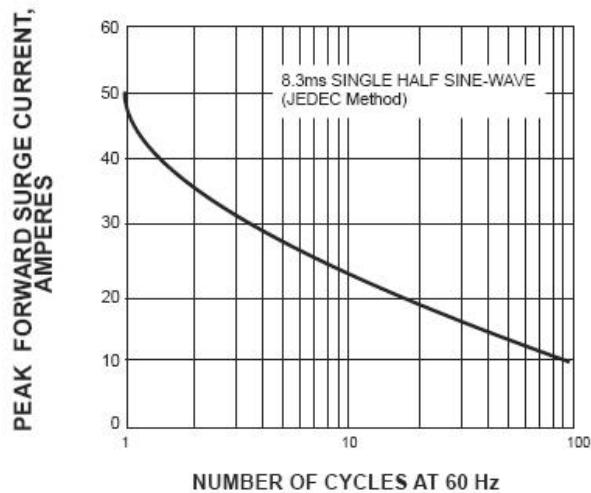


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



Technical Data
Data Sheet N1952, Rev. C

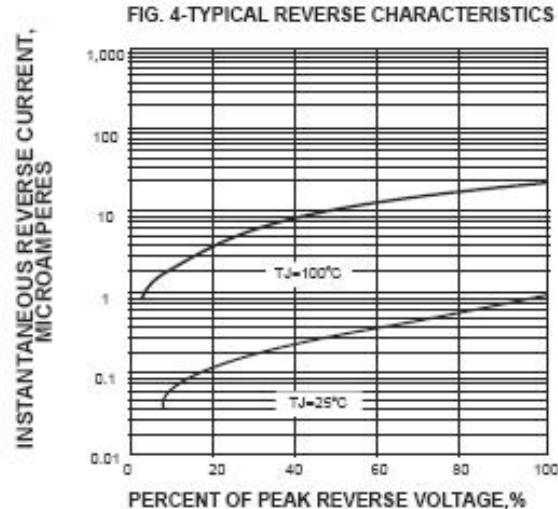
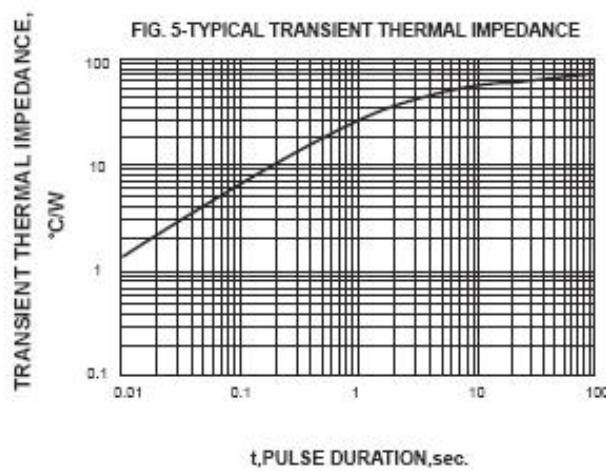
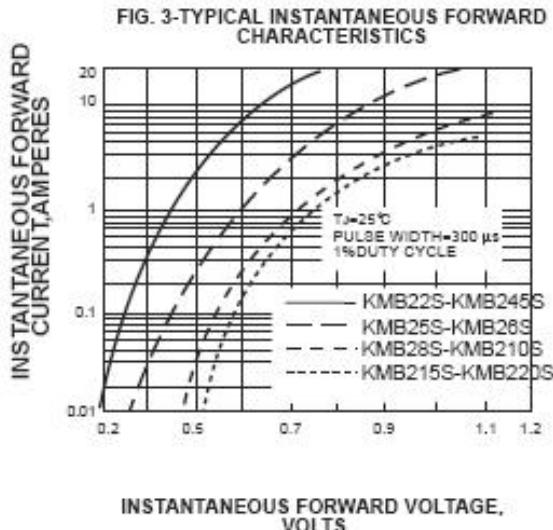
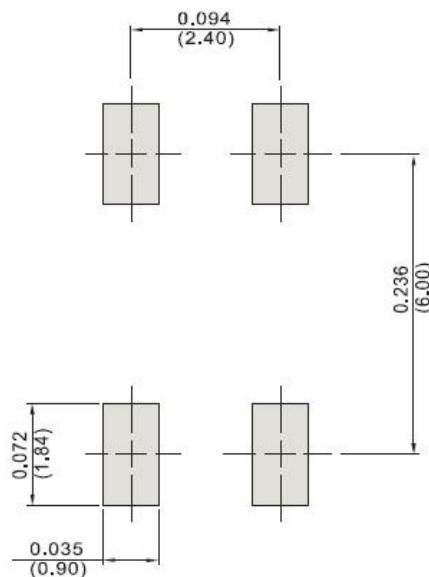


FIG.6 MOUNTING PAD LAYOUT(mm/Inches)

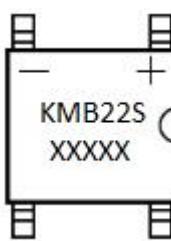


Ordering Information

Device	Package	Plating	Shipping
KMB22S THRU KMB220S	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

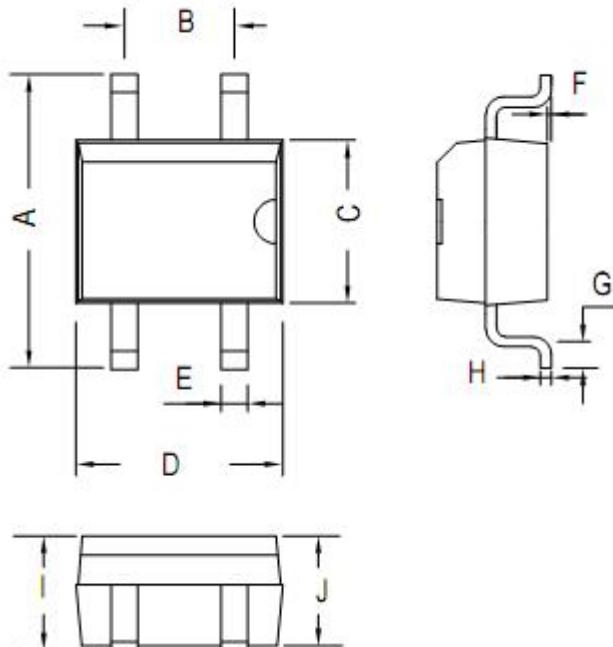
KMB22S = Type Number
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL94V-0

Technical Data
Data Sheet N1952, Rev. C

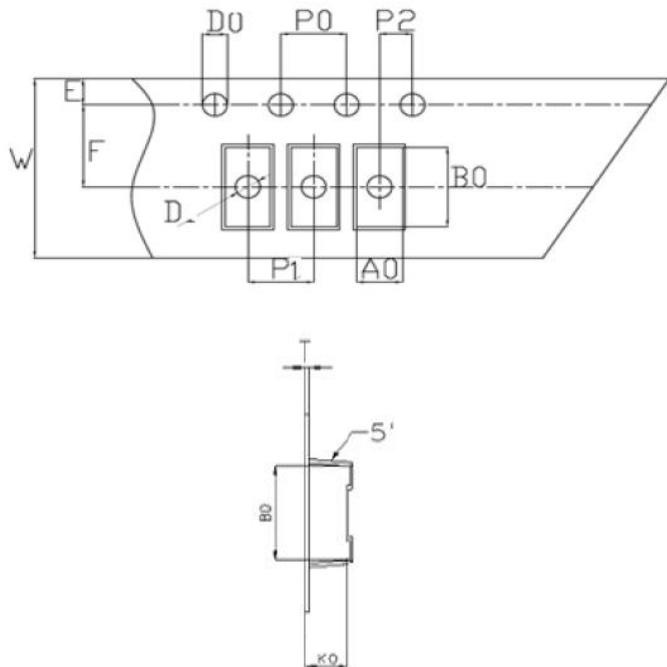


Mechanical Dimensions MB-S(Inches/Millimeters)



Dimensions	Millimeters		Inches	
	Min	Max	Min	Max
A	-	7.0	-	0.276
B	2.3	2.7	0.091	0.106
C	3.6	4.1	0.142	0.161
D	4.5	4.95	0.177	0.195
E	0.5	0.7	0.020	0.028
F	-	0.2	-	0.008
G	0.3	0.75	0.012	0.043
H	0.15	0.25	0.006	0.010
I	2.3	2.8	0.091	0.110
J	2.3	2.7	0.091	0.109

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	$\geq 3\text{KG}$	

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