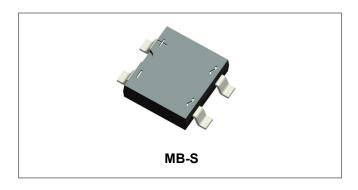






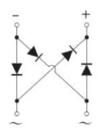
# KMB22S THRU KMB225S SINGLE PHASE 2.0 AMP SURFACE MOUNT SCHOTTKY BRIDGE RECTIFIER



### **Features**

- Schottky Brrier Chip
- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Surge Overload Rating to 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,
   Mathed 200.
  - 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 215S	KMB 220S		Unit
Peak Repetitive Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>DC</sub>	20	30	40	45	50	60	80	100	150	200	250	٧
RMS Voltage	V <sub>RMS</sub>	14	21	28	31	35	42	56	70	105	140	175	<b>\</b>
Average Rectified Output Current (Note1)@T <sub>A</sub> =90°C	Io						2.0						Α
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	50							Α				
I <sup>2</sup> t Rating for fusing (t <8.3ms)	l²t	5						A <sup>2</sup> s					

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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 <sub>F</sub> =2A, T <sub>A</sub> = 25°C	V <sub>F</sub>	0.55			0.	0.70 0.85		0.90		0.92	<b>V</b>		
Peak Reverse Current @T <sub>A</sub> = 25°C At Rated DC Blocking Voltage @T <sub>A</sub> = 100°C	I <sub>RM</sub>	0.1					0.05 5					mA	
		10 5											
Typical Junction Capacitance (per leg) (Note 2)	Сл	28						pF					

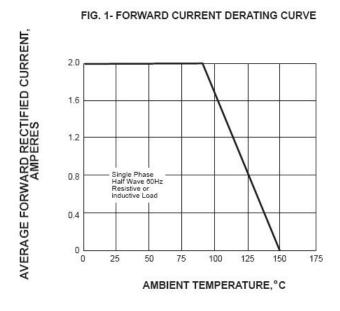
 $<sup>^*</sup>$  Pulse width < 300  $\mu$ s, duty cycle < 2%

### **Thermal-Mechanical Specifications:**

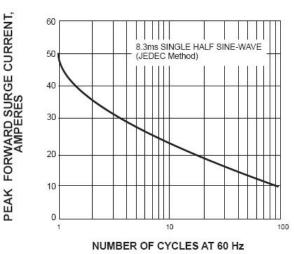
Type Number	Symbol	KMB 22S	KMB 23S	KMB 24S	KMB 245S	KMB 25S	KMB 26S	KMB 28S	KMB 210S	KMB 215S	KMB 220S	KMB 225S	Unit
Typical Thermal Resistance (per leg) (Note 3)	R <sub>θJA</sub>						75						°C/W
Operating junction temperature range	TJ	-55 to +150					°C						
Storage Temperature Range	T <sub>STG</sub>		-55 to +150					°C					

- Note: 1. Mounted on glass epoxy PC board with 1.3mm<sup>2</sup> solder pad..
  - 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.
  - 3. Thermal REsistance From Junction to Ambient

### **Ratings and Characteristics Curves**



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



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FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS INSTANTANEOUS FORWARD CURRENT, AMPERES 20 10 KMB22S-KMB245S 0.1 KMB25S-KMB26S KMB28S-KMB210 KMB215S-KMB22bS KMB225S 0.01 1.2 0.2 0.5 0.7 0.9 1.1

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

1,000

1,000

100

TJ=100°C

1,000

TJ=25°C

0.01

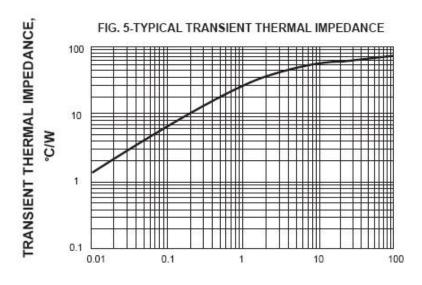
0.01

0.01

0.01

PERCENT OF PEAK REVERSE VOLTAGE,%

INSTANTANEOUS FORWARD VOLTAGE, VOLTS



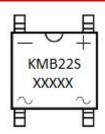
t,PULSE DURATION,sec.

### **Ordering Information**

Device	Package	Shipping
KMB22S THRU KMB225S	MB-S (Pb-Free)	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

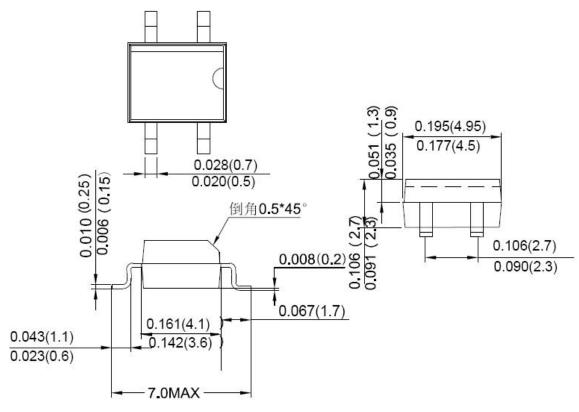
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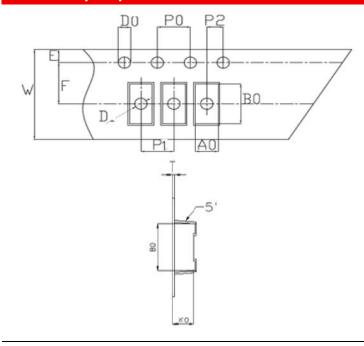




### **Mechanical Dimensions MB-S(Inches/Millimeters)**



### **Carrier Tape Specification MB-S**



SYMBOL	Millimeters							
STWIBOL	Min.	Max.						
A0	4.92	5.12						
В0	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						
Т	0.24	0.30						
10P0	39.80	40.20						
抗拉拉力	≥3KG							

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