

KMB22S THRU KMB220S

2.0A Surface Mount Schottky Barrier Single-Phase Bridge Rectifiers-20-200V

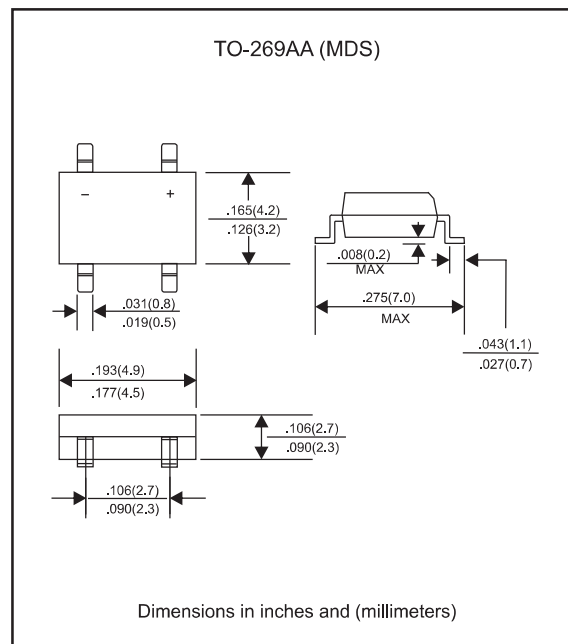
Features

- Surge overload ratings to 30 amperes peak.
- 2.0A rating in low profile surface mount mini-bridge save space on printed circuit board.
- Ideal for automated replacement.
- Reliable low cost construction utilizing molded plastic technology results in inexpensive product.
- Silicon eplana epitaxial chip, metal silicon junction.
- Lead-free parts meet RoHS requirments.
- Suffix "-H" indicates Halogen free part, ex.KMB24S-H

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, TO-269AA(MDS)
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : marked on body
- Mounting Position : Any

Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Average Forward rectified current	See Fig.1	I_{AV}			2.0	A
Peak Forward surge current	8,3ms single half sine-wave (JEDEC methode)	I_{FSM}			50	A
Reverse current	$V_R = V_{RRM} \quad T_J = 25^{\circ}\text{C}$	I_R			0.5	mA
	$V_R = V_{RRM} \quad T_J = 100^{\circ}\text{C}$				10	
Thermal resistance	Junction to ambient	$R_{\theta JA}$		75		$^{\circ}\text{C/W}$
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		180		pF
Storage temperature		T_{STG}	-55		+150	$^{\circ}\text{C}$

SYMBOLS	V _{RRM} ^{*1} (V)	V _{RMS} ^{*2} (V)	V _R ^{*3} (V)	V _F ^{*4} (V)	Operating temperature T _J , (°C)
KMB22S	20	14	20	0.55	-55 to +150
KMB24S	40	28	40		
KMB26S	60	42	60	0.70	
KMB28S	80	56	80	0.85	
KMB210S	100	70	100		
KMB215S	150	105	150	0.90	
KMB220S	200	140	200		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage
per element at 2.0A peak

Rating and characteristic curves (KMB22S THRU KMB220S)

FIG. 1- FORWARD CURRENT DERATING CURVE

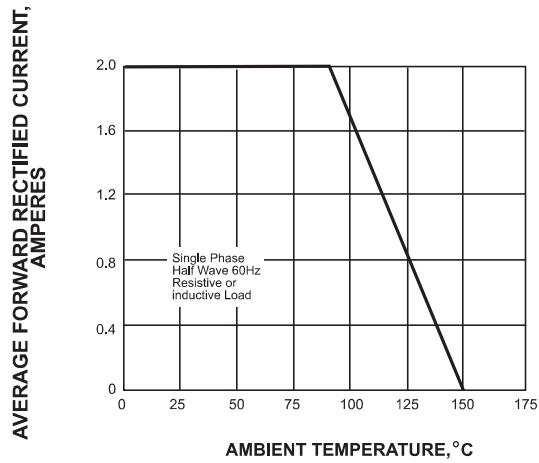


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

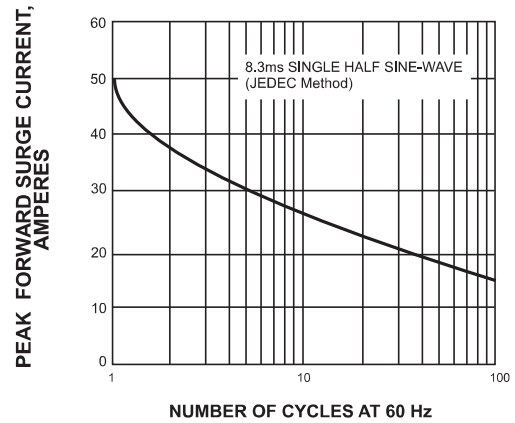


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

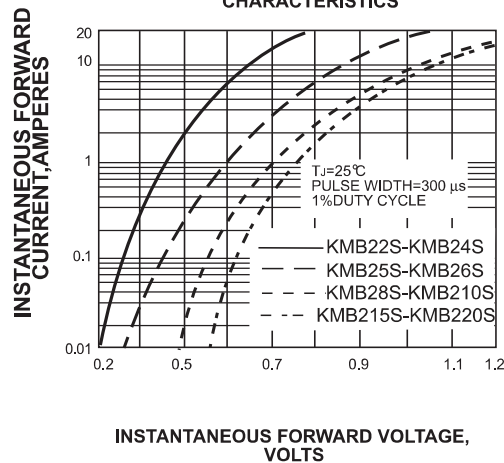


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

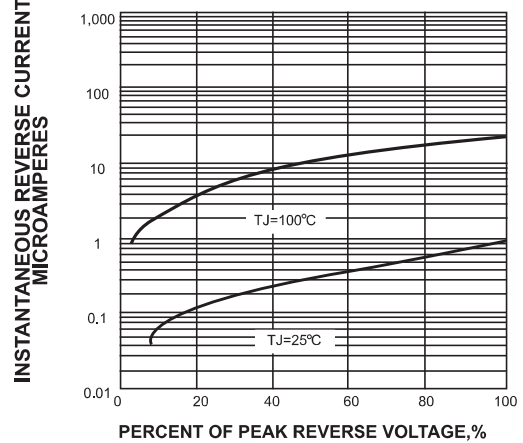
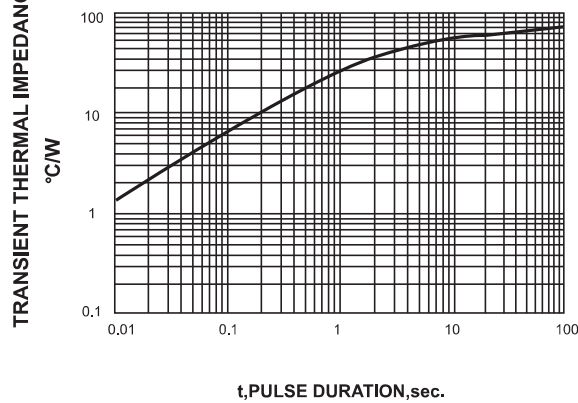
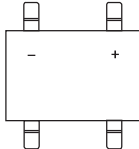
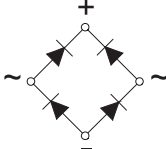


FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE

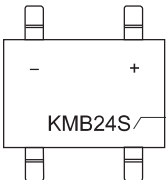
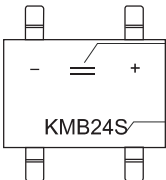


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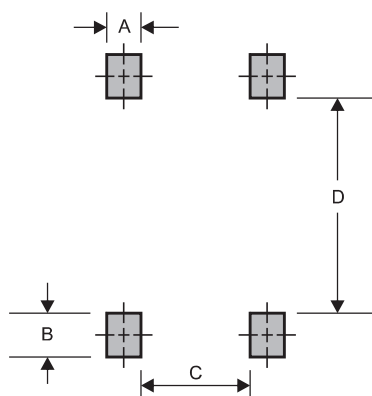
Pinning information

implified outline	Symbol
	

Marking

Type number	Marking code	Example	
KMB22S	KMB22S	1. For Halogen Device	2. For Halogen-free Device
KMB24S	KMB24S		
KMB26S	KMB26S		
KMB28S	KMB28S		
KMB210S	KMB210S		
KMB215S	KMB215S		
KMB220S	KMB220S		

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C	D
TO-269AA (MDS)	0.023 (0.58)	0.030 (0.76)	0.070 (1.78)	0.226 (5.75)

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
TO-269AA (MDS)	13"	3,000	8.0	6,000	337*337*37	330	350*330*360	48,000	14.1