

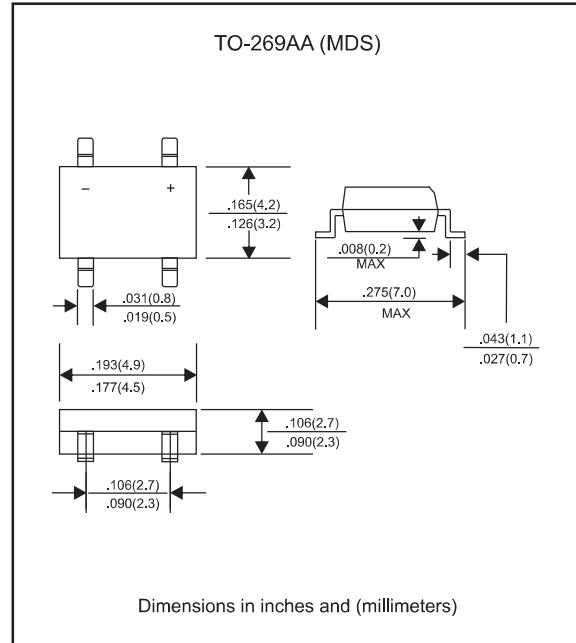
Features

- Surge overload ratings to 50 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.
- Compliant to Halogen-free

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		$^{\circ}\text{C}/\text{W}$
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 , ($^{\circ}\text{C}$)
KMB22S	20	14	20	0.55	
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

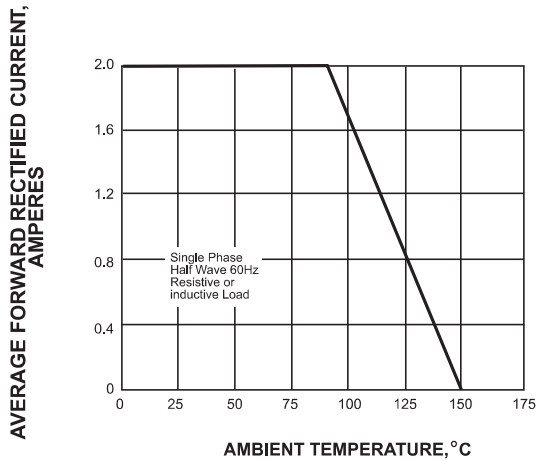


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

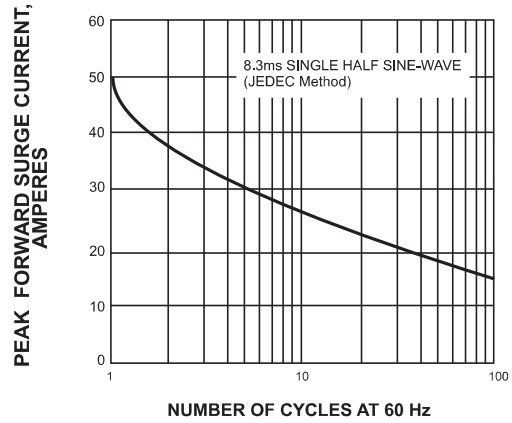


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

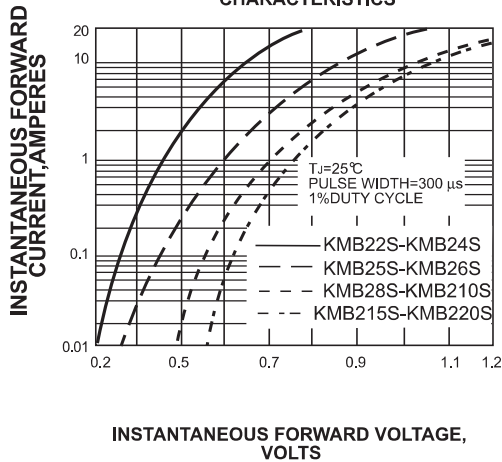


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

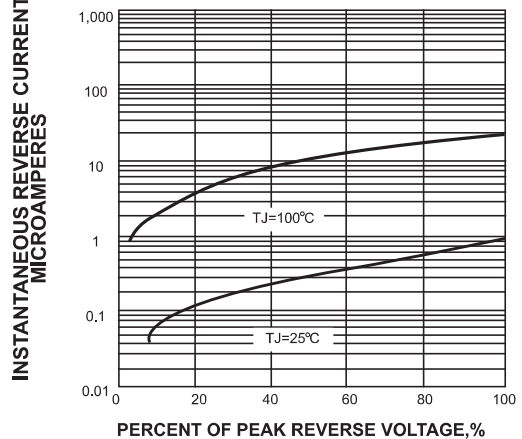
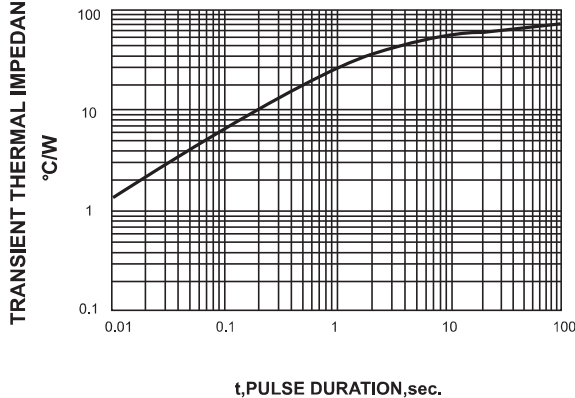
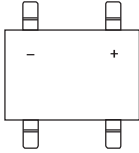
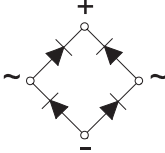


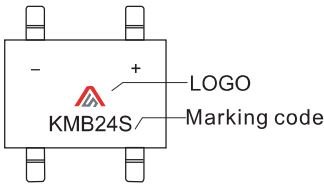
FIG. 5-TYPICAL TRANSIENT THERMAL IMPEDANCE



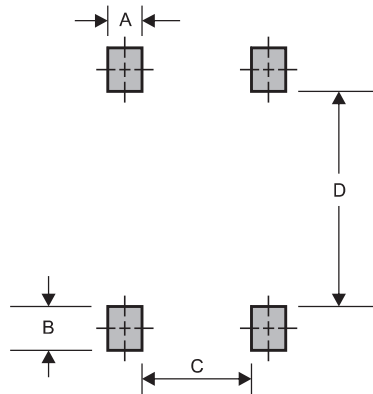
Pinning information

implified outline	Symbol
	

Marking

Type number	Marking code	Example
KMB22S	KMB22S	
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)