



**FRONTIER  
ELECTRONICS CO., LTD.**

**MD005S  
OR (MB005S)  
THRU  
MD10S  
OR (MB10S)**

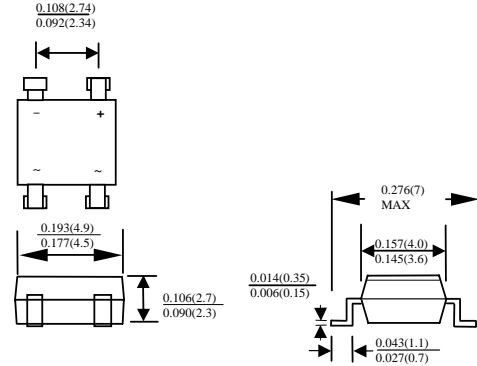
**0.8A MINI SURFACE MOUNT BRIDGE RECTIFIERS**

**FEATURES**

- PLASTIC MATERIAL USED CARRIES UNDERWRITERS LABORATORY RECOGNITION 94V-0
- GLASS PASSIVATED CHIP
- IDEAL FOR PRINTED CIRCUIT BOARD

**MECHANICAL DATA**

- CASE : MOLDED PLASTIC
- TERMINALS : LEAD SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY : POLARITY SYMBOLS MARKED ON BODY
- MOUNTING POSITION : ANY
- WEIGHT : 0.22 GRAMS



DIMENSIONS IN INCHES AND (MILLIMETERS)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**  
RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED  
SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD.  
FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%

RATINGS	SYMBOL	MD(B)005S	MD(B)1S	MD(B)2S	MD(B)4S	MD(B)6S	MD(B)8S	MD(B)10S	UNITS
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	$V_{RRM}$	50	100	200	400	600	800	1000	V
MAXIMUM RMS VOLTAGE	$V_{RMS}$	35	70	140	280	420	560	700	V
MAXIMUM DC BLOCKING VOLTAGE	$V_{DC}$	50	100	200	400	600	800	1000	V
MAXIMUM AVERAGE FORWARD OUTPUT RECTIFIED CURRENT AT $T_A=40^\circ\text{C}$	$I_O$	0.8							A
PEAK FORWARD SURGE CURRENT SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD	$I_{FSM}$	30							A
TYPICAL JUNCTION CAPACITANCE PER ELEMENT (NOTE 1)	$C_J$	18							PF
STORAGE TEMPERATURE RANGE	$T_{STG}$	- 55 TO + 150							$^\circ\text{C}$
OPERATING TEMPERATURE RANGE	$T_{OP}$	- 55 TO + 150							$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS ( $A_T T_A = 25^\circ\text{C}$  UNLESS OTHERWISE NOTED)**

CHARACTERISTICS	SYMBOL	MD(B)005S	MD(B)1S	MD(B)2S	MD(B)4S	MD(B)6S	MD(B)8S	MD(B)10S	UNITS
MAXIMUM INSTANTANEOUS FORWARD VOLTAGE DROP PER ELEMENT AT 0.8A	$V_F$	1.0							V
MAXIMUM REVERSE CURRENT AT RATED DC BLOCKING VOLTAGE PER ELEMENT $T_A=25^\circ\text{C}$ $T_A=125^\circ\text{C}$	$I_R$	5.0							$\mu\text{A}$
		0.5							mA
MARKING		MD005S OR MB005S	MD1S OR MB1S	MD2S OR MB2S	MD4S OR MB4S	MD6S OR MB6S	MD8S OR MB8S	MD10S OR MB10S	

NOTE : 1. MEASURED AT 1.0 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS

# RATING AND CHARACTERISTICS CURVES MD(B)005S THRU MD(B)10S

FIG. 1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

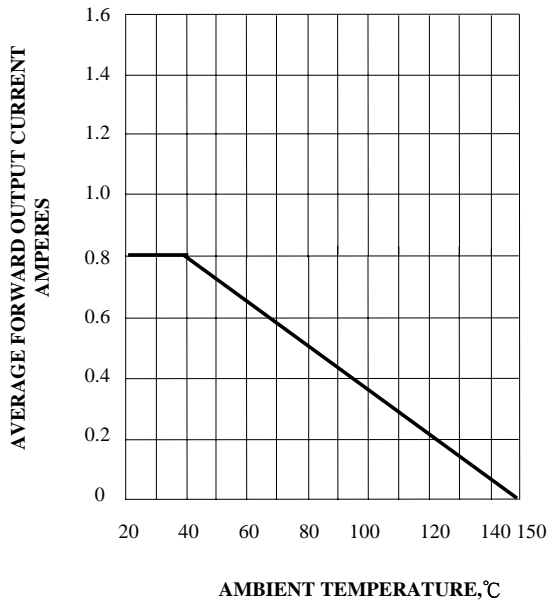


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

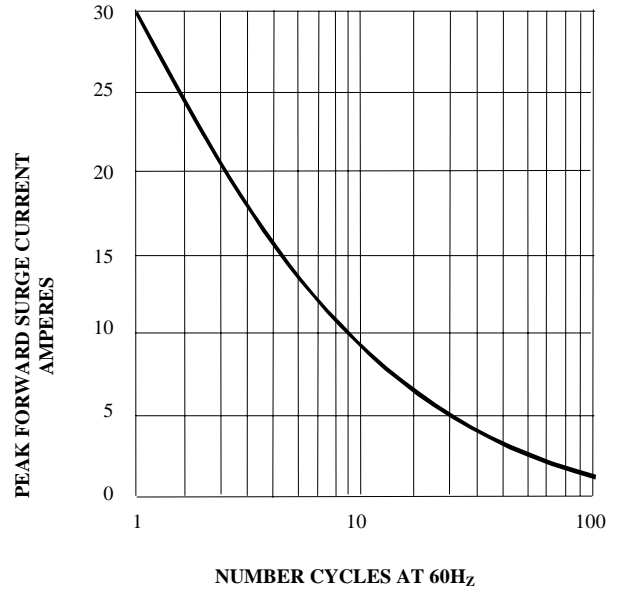


FIG. 3 - TYPICAL FORWARD CHARACTERISTICS

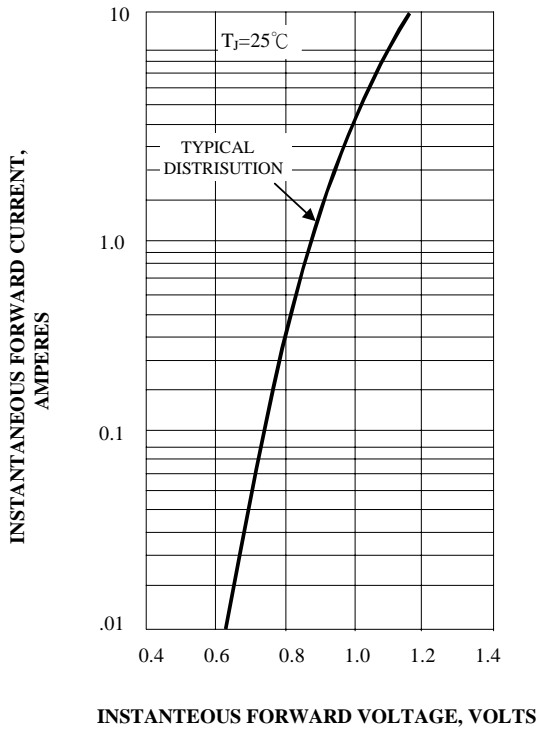


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

