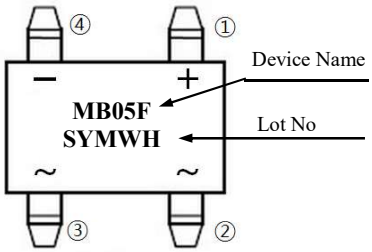
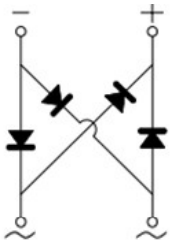
Surface Mount Glass Passivated Single-Phase Bridge Rectifiers
Reverse Voltage 50 to 1000 Volts Forward Current 0.5 Amperes

Features
- Glass passivated junction chip
- Ideally suited for automatic assembly
- Save space on printed circuit boards
- Low forward voltage drop
- Designed for surface mount application
- Plastic material used carries underwriters laboratory classification 94V-O
- High temperature soldering : 260℃ /10 seconds at terminals

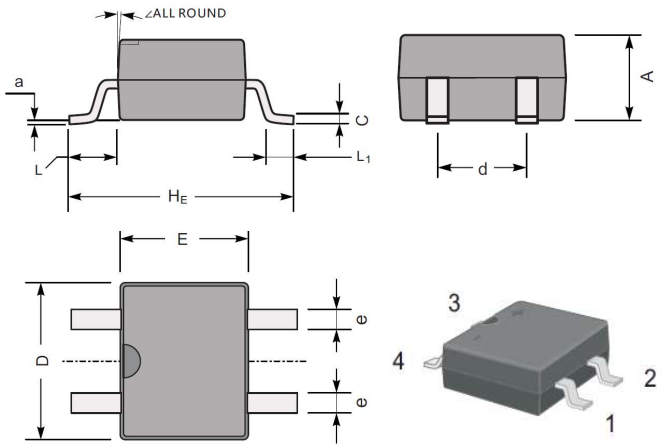
Mechanical Data
- Case : MBS, Molded plastic
- Terminals : Solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : As marked on case
- Weight : 0.22 gram (Approx.)

Marking





MBS



UNIT		A	C	D	E	H_E	d	e	L	L_1	a	∠
mm	max	2.6	0.22	5.0	4.1	7.0	2.7	0.7	1.7	1.1	0.2	7°
	min	2.2	0.15	4.5	3.6	6.4	2.3	0.5	1.3	0.5	—	
mil	max	102	8.7	197	161	276	106	28	67	43	8	
	min	94	5.9	177	142	252	91	20	51	20	—	

Maximum Ratings & Electrical Characteristics (If not specified Ta =25℃)

Parameter	Symbol	MB05F	MB1F	MB2F	MB4F	MB6F	MB8F	MB10F	Unit	Remark
Maximum Repetitive 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 Rectified Current (see Fig.1) on glass-epoxy P.C.B on aluminum substrate	$I_{(AV)}$	0.5 0.8							A	Note 2 Note 3
Peak Forward Surge Current 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30							A	
Maximum Instantaneous Forward Voltage at 0.5A	V_F	1.0							V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5.0							uA	Ta=25℃
		500							uA	Ta=125℃
Typical Junction Capacitance	C_J	13							pF	Note 1
Typical Thermal Resistance	Rth(j-a)	60							℃/W	Note 3
	Rth(j-l)	16							℃/W	Note 2
Operation Junction and Storage Temperature Range	T_{STG}	-55 to +150							℃	

Note 1. Measured at 1MHz and Applied Reverse Voltage of 4.0Volts D.C.
Note 2. On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pad
Note 3. On aluminum substrate P.C.B. with an area of 0.8 x 0.8" (20 x 20mm) mounted on 0.05 x 0.05" (1.3 x 1.3mm) solder pad

Ratings and Characteristics Curves (Ta=25℃ unless otherwise noted)

Fig.1 Forward Current Derating Curve

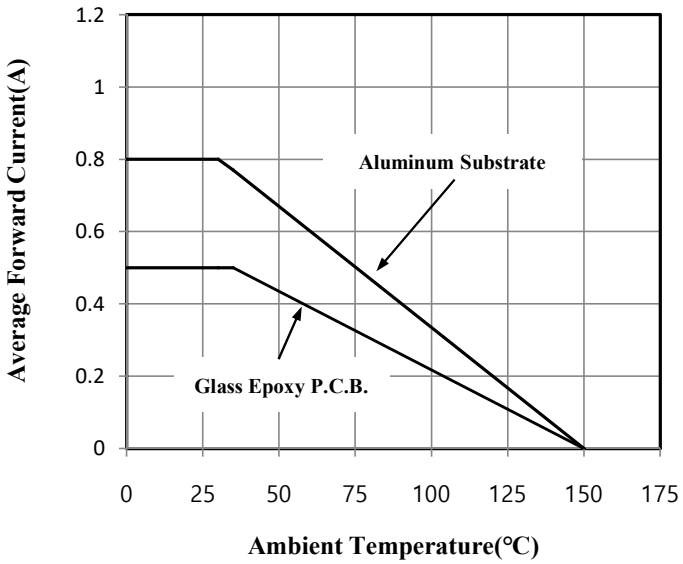


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

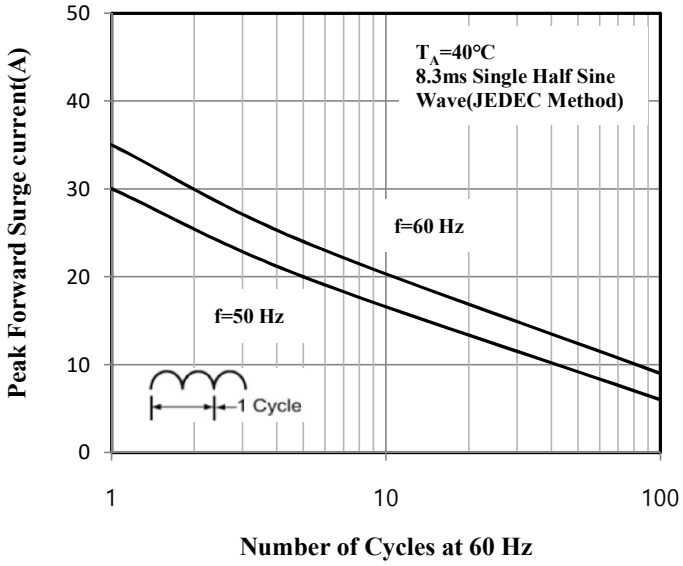


Fig.3 Typical Instantaneous Forward Characteristics

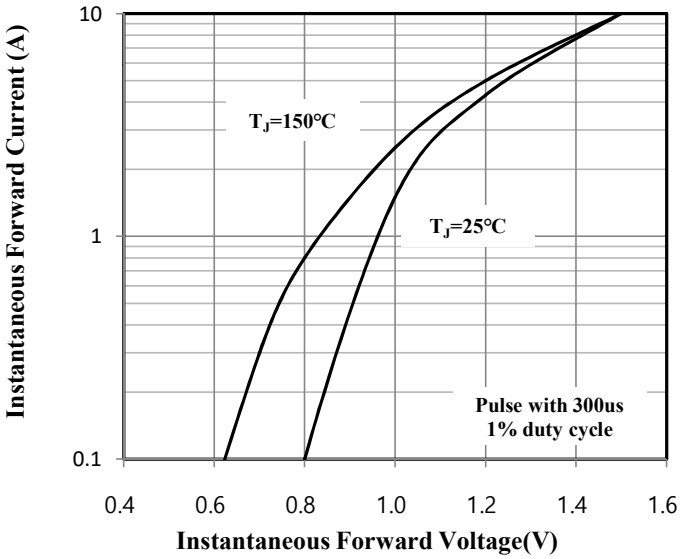


Fig.4 Typical Junction Capacitance

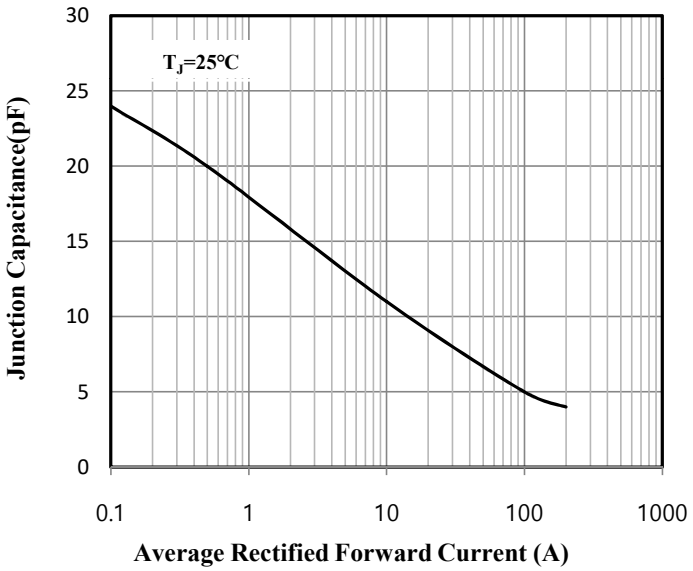


Fig.5 Typical Reverse Charateristics