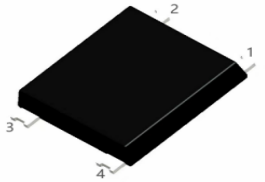
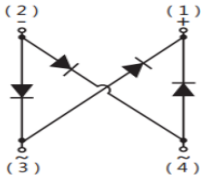
MSB50B~MSB50M

Single Phase 5.0Amp Glass passivated Bridge Rectifiers

MSB Package





Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 260℃/10 seconds at terminals

Mechanical Data

Case : Molded plastic body
Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any

Maximum Ratings And Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified. Single phase half-wave 60Hz,resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	MSB50B	MSB50D	MSB50G	MSB50J	MSB50K	MSB50M	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	100	200	400	600	800	1000	V
Maximum average forward rectified current at T_L=100℃	$I_{(AV)}$	5.0						A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150.0						A
Rating for fusing (t=8.3ms, Ta=25℃)	I^2t	93.375						A^2s
Maximum instantaneous forward voltage at 5.0A	V_F	1.1						V
Maximum DC reverse current T_A =25℃ at rated DC blocking voltage T_A=125℃	I_R	2.0 200						u A
Typical junction capacitance (Note 1)	C_J	46						pF
Typical thermal resistance	R_{qJA}	55						°C/W
Operating junction and storage temperature range	T_J,T_{STG}	-55 to +150						°C

Note: 1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

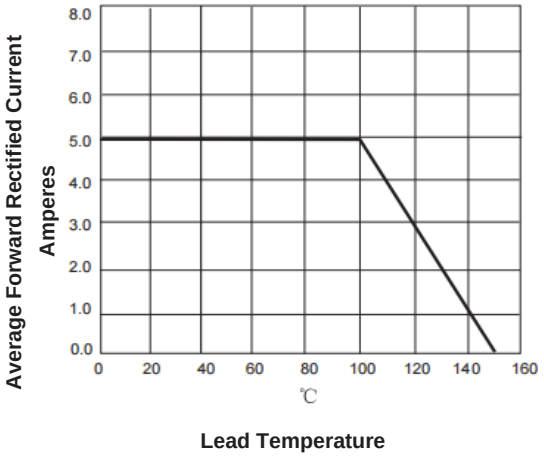


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

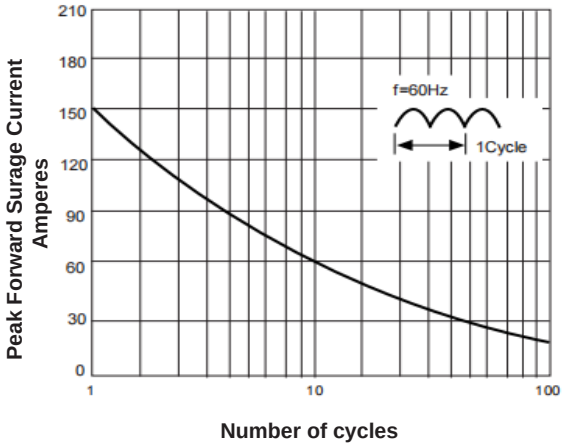


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

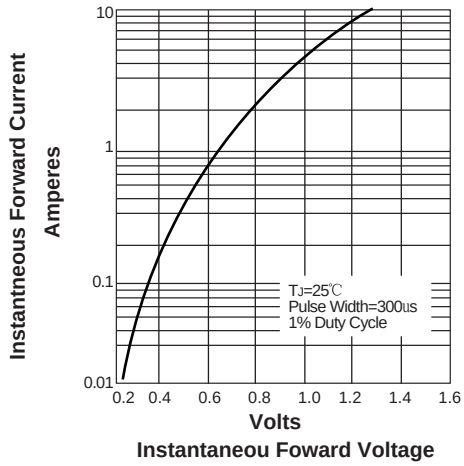
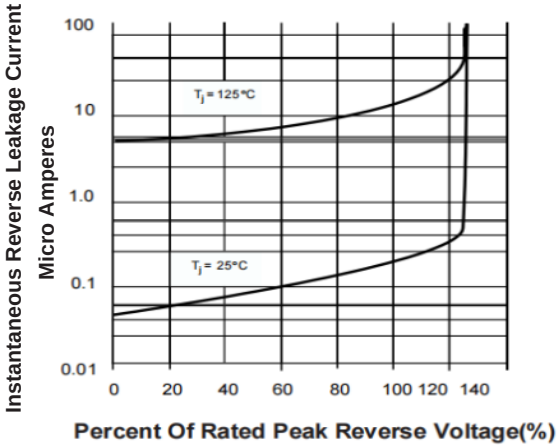
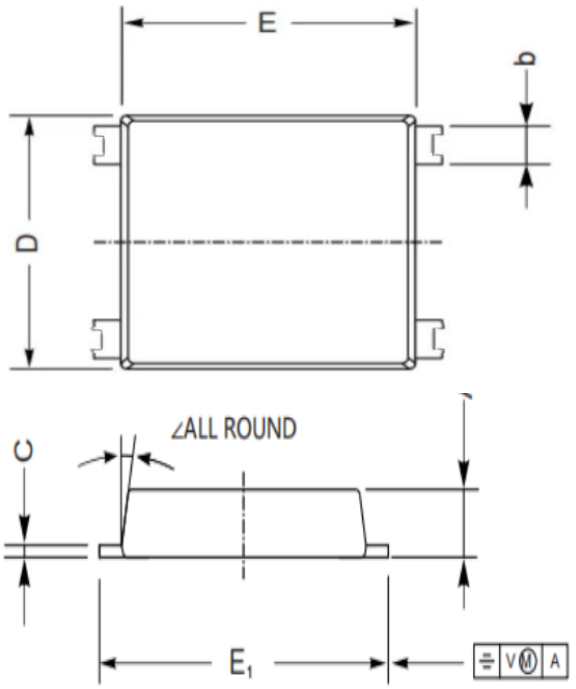


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



PACKAGEOUTLINEDIMENSIONS

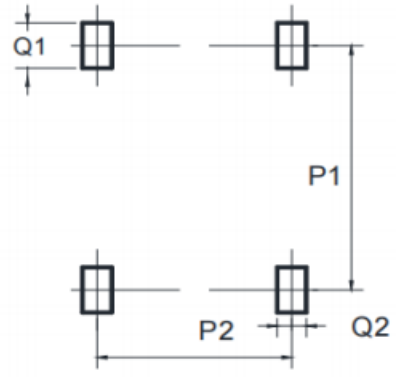
MSB



MSB mechanical data

UNIT		A	C	D	E	E1	L	e	b	∠
mm	max	1.5	0.29	7.0	7.6	8.9	1.6	5.3	1.15	7°
	min	1.3	0.17	6.2	7.1	8.4	1.0	4.9	0.95	
mil	max	59	12	276	299	350	63	209	45	
	min	51	7	244	280	331	39.3	193	37	

MSB Suggested Pad Layout



Dimensions is millimeters

UNIT		P1	P2	Q1	Q2
mm	min	8.30	5.10	1.6	1.2
mil	min	326.77	200.79	63.0	47.25