

MSB20B THRU MSB20M

2A SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

FEATURES: <ul style="list-style-type: none"> • Glass Passivated Chip Junction • Reverse Voltage - 100 to 1000 V • Forward Current - 2.0 A • High Surge Current Capability • Designed for Surface Mount Application MECHANICAL DATA <ul style="list-style-type: none"> • Case: UMSB • Terminals: Solderable per MIL-STD-750, Method 2026 	VOLTAGE RANGE 1000 Volts CURRENT 2.0 Ampere																																																		
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	<table border="1"> <thead> <tr> <th>UNIT</th> <th></th> <th>A</th> <th>C</th> <th>D</th> <th>E</th> <th>E₁</th> <th>L</th> <th>e</th> <th>b</th> <th>∠</th> </tr> </thead> <tbody> <tr> <td rowspan="2">mm</td> <td>max</td> <td>1.5</td> <td>0.29</td> <td>7.0</td> <td>7.6</td> <td>8.9</td> <td>1.6</td> <td>5.3</td> <td>1.15</td> <td rowspan="4">10°</td> </tr> <tr> <td>min</td> <td>1.3</td> <td>0.17</td> <td>6.2</td> <td>7.1</td> <td>8.4</td> <td>1.0</td> <td>4.9</td> <td>0.95</td> </tr> <tr> <td rowspan="2">mil</td> <td>max</td> <td>59</td> <td>12</td> <td>276</td> <td>299</td> <td>350</td> <td>55</td> <td>209</td> <td>45</td> </tr> <tr> <td>min</td> <td>51</td> <td>7</td> <td>244</td> <td>280</td> <td>331</td> <td>31.5</td> <td>193</td> <td>37</td> </tr> </tbody> </table>	UNIT		A	C	D	E	E ₁	L	e	b	∠	mm	max	1.5	0.29	7.0	7.6	8.9	1.6	5.3	1.15	10°	min	1.3	0.17	6.2	7.1	8.4	1.0	4.9	0.95	mil	max	59	12	276	299	350	55	209	45	min	51	7	244	280	331	31.5	193	37
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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 current derate by 20 %.

Parameter	Symbols	MSB20B	MSB20D	MSB20G	MSB20J	MSB20K	MSB20M	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
Average Rectified Output Current	I_O	2.0						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	50						A
Maximum Forward Voltage at 2.0 A	V_F	1.1						V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	5 100						μA
Typical Junction Capacitance (Note1)	C_j	30						pF
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4 V D.C.

2. Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

RATING AND CHARACTERISTIC CURVES (MSB20B THRU MSB20M)

Fig.1 Average Rectified Output Current Derating Curve

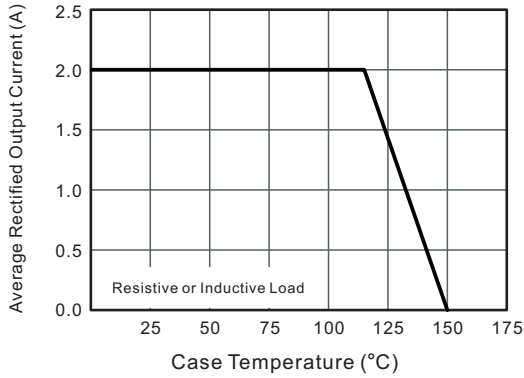


Fig.2 Typical Reverse Characteristics

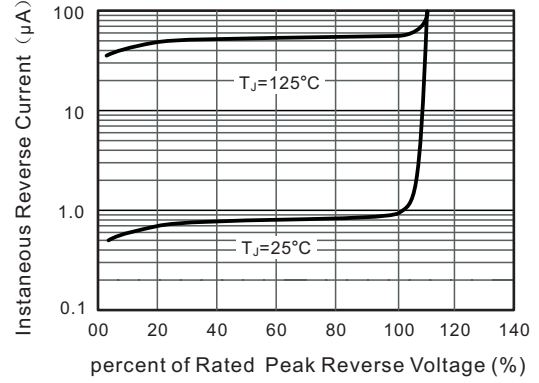


Fig.3 Typical Instantaneous Forward Characteristics

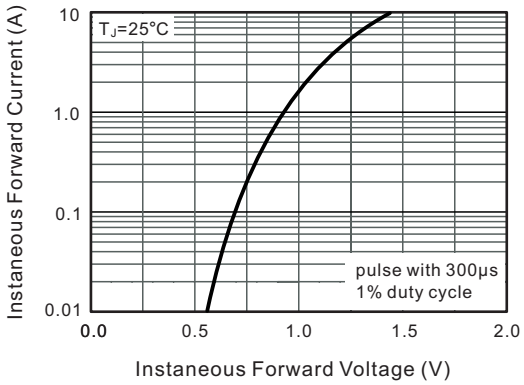


Fig.4 Typical Junction Capacitance

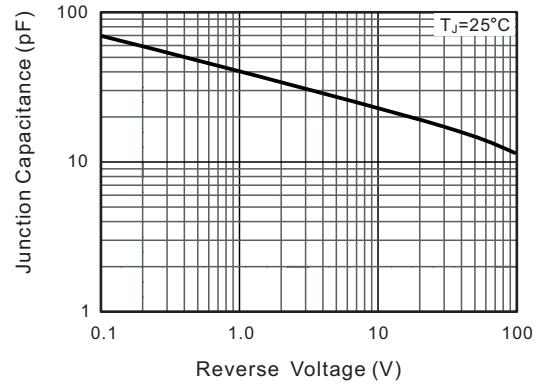


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

