



Micro Commercial Components



Micro Commercial Components
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LMB2S THRU LMB10S

Features

- Low Profile: Typical height of 1.4mm
- High Temperature Soldering Guaranteed: 260°C/10 Second
- High surge current capability

Mechanical Data

- Lead Free Finish/RoHS Compliant (NOTE 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Terminals: Matte tin plated leads, solderable per J-STD-002B and JESD22-B102D

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
LMB2S	LB2S	200V	140V	200V
LMB4S	LB4S	400V	280V	400V
LMB6S	LB6S	600V	420V	600V
LMB8S	LB8S	800V	560V	800V
LMB10S	LB10S	1000V	700V	1000V

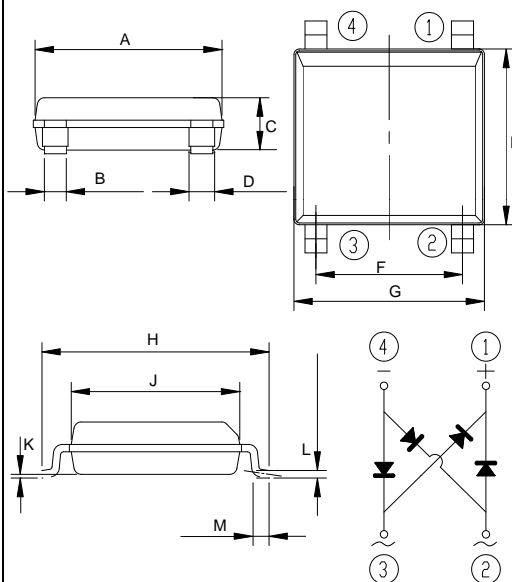
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0 A 0.8 A	on aluminum substrate on glass-epoxy P.C.B
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	0.95V	$I_{FM} = 0.4A$; $T_A = 25^\circ C$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5uA 500uA	$T_A = 25^\circ C$ $T_A = 125^\circ C$
Typical Thermal Resistance	R_{thJA} R_{thJL}	80°C/W 25°C/W	Note 2
Rating For Fusing	I^2t	3.0A ² s	t<8.30ms
Operating Junction and Storage Temperature Range	T_J T_{STG}	-55to+150 °C	

- Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7
2. Device mounted P.C.B with 0.47x0.47"(12mmx12mm) Copper Pads.

1.0 Amp Single Phase Glass Passivated Bridge Rectifier 200 to 1000 Volts

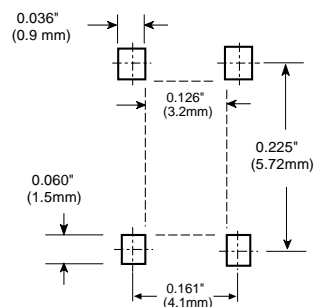
LMBS -1

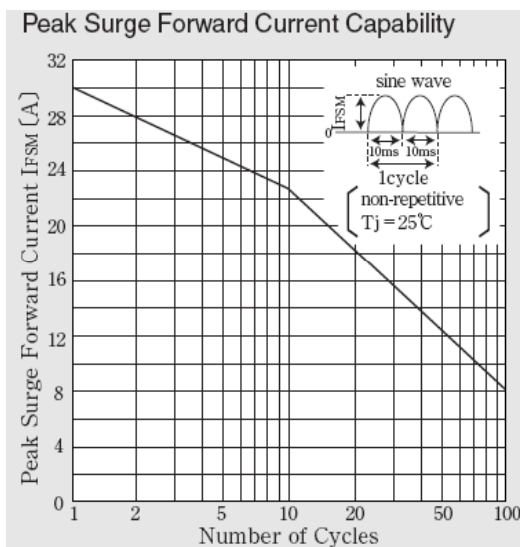
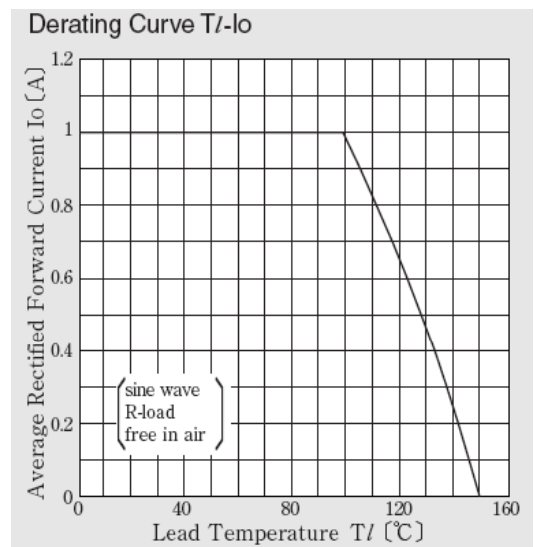
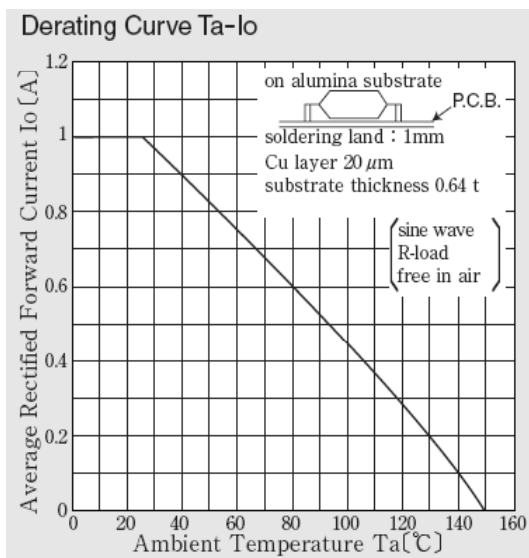
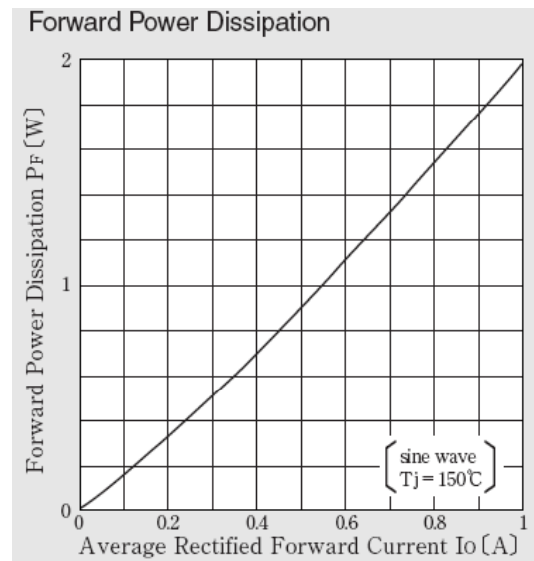
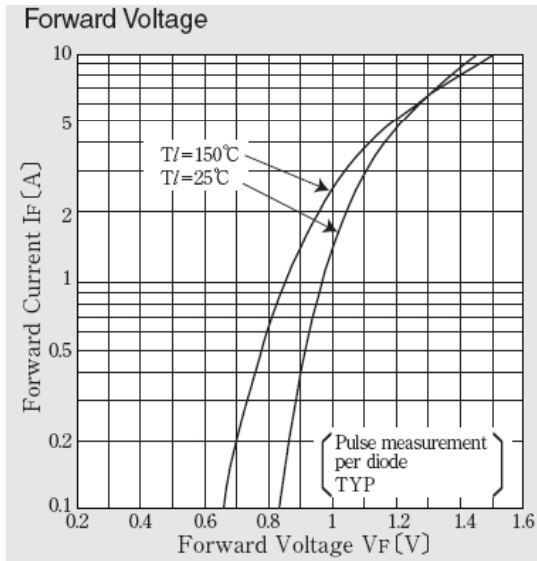


DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.197	.205	4.90	5.20	
B	.024		0.6		
C	----	.059	----	1.50	
D	.024	.032	0.60	0.80	
E	----	.189	----	4.80	
F	.150	.165	3.80	4.20	
G	----	.209	----	5.30	
H	.236	.252	6.00	6.60	
J	.177	.185	4.30	4.70	
K	.0009	.004	0.02	0.21	
L	.006	.012	0.15	0.30	
M	.017	.019	0.25	0.70	

Mounting Pad Layout





Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;5Kpcs/Reel

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MB05S THRU MB10S

Features

- Glass Passivated Diode Construction
- High Temperature Soldering Guaranteed: 260°C/10 Second
- Saves Space On Printed Circuit Board

Mechanical Data

- Lead Free Finish/RoHS Compliant (NOTE 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating and MSL Rating 1 per J-STD-020C
- Terminals: Plated leads Solderable per MIL-STD-750, Method 2026
- UL Recognized File # E165989

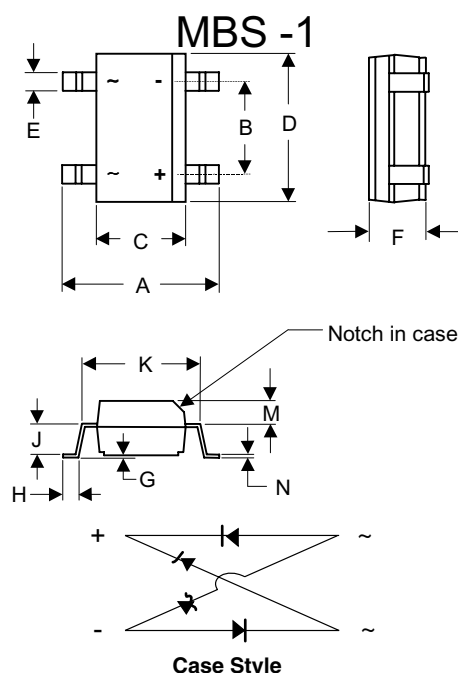
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MB05S	MB05S	50V	35V	50V
MB1S	MB1S	100V	70V	100V
MB2S	MB2S	200V	140V	200V
MB4S	MB4S	400V	280V	400V
MB6S	MB6S	600V	420V	600V
MB8S	MB8S	800V	480V	800V
MB10S	MB10S	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	0.5 A ⁽²⁾ 0.8 A ⁽³⁾	See Fig.1
Peak Forward Surge Current	I_{FSM}	35A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.0V	$I_{FM} = 0.4A$; $T_A = 25^\circ C$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5uA 100uA	$T_A = 25^\circ C$ $T_A = 125^\circ C$
Typical Thermal Resistance	R_{thJA} R_{thJA} R_{thJL}	85°C/W ⁽²⁾ 70°C/W ⁽³⁾ 20°C/W ⁽²⁾	per leg
Typical Junction Capacitance	C_J	13pF	Measured at 1.0MHz, $V_R = 4.0V$
Rating For Fusing	I^2t	5.0A ² s	$t < 8.30ms$
Operating Junction and Storage Temperature Range	T_J T_{STG}	-55to+150 °C	

- Notes:
1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7
 2. On glass epoxy P.C.B. mounted on 0.05 x 0.05" (1.3 x 1.3mm) pads
 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

0.5 Amp Single Phase Glass Passivated Bridge Rectifier 50 to 1000 Volts



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.252	.272	6.40	6.90	
B	.095	.106	2.41	2.70	
C	.150	.165	3.80	4.20	
D	.179	.195	4.55	4.95	
E	.019	.031	0.50	0.80	
F	.090	.106	2.30	2.70	
G	.004	.008	0.10	0.20	
H	.027	.043	0.70	1.10	
J	.058	.062	1.47	1.57	
K	.195	.205	4.95	5.21	
M	.039	.049	0.99	1.24	
N	.006	.016	0.15	0.41	

Mounting Pad Layout

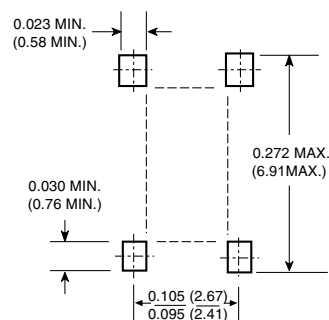


Figure 1. Derating Curve for Output Rectified Current

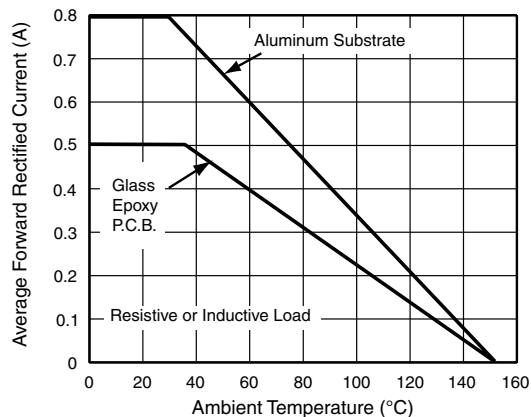
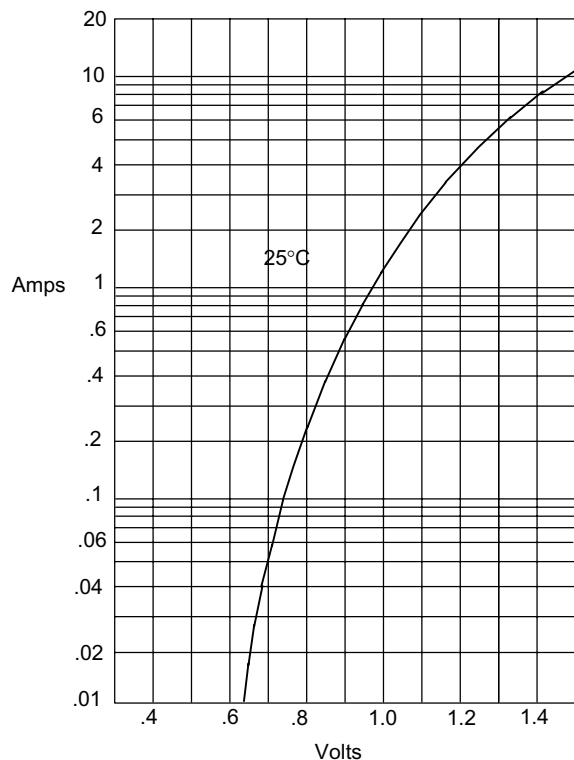
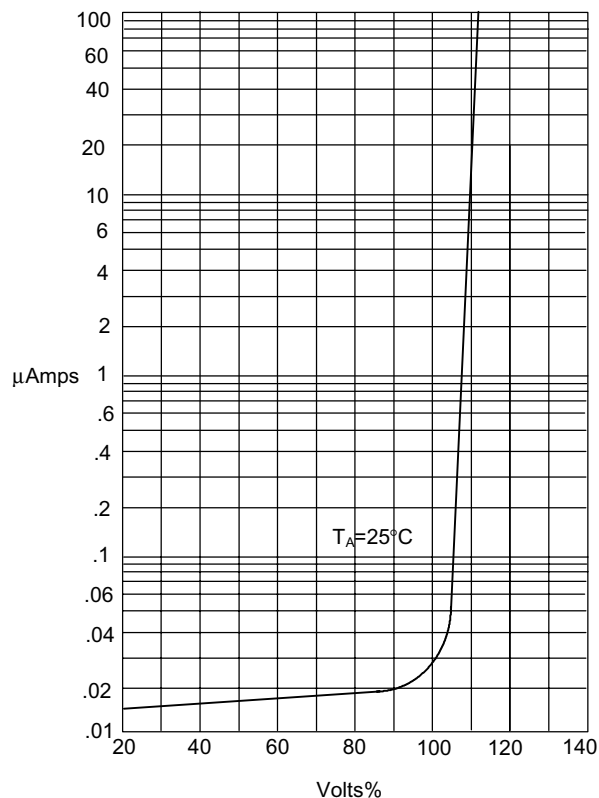


Figure 3
Typical Forward Characteristics



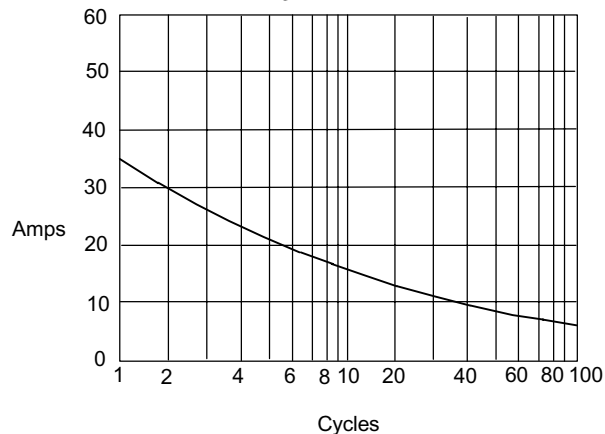
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts%

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*
Number Of Cycles At 50Hz - Cycles

Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;3Kpcs/Reel

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