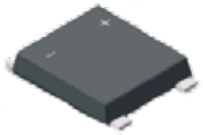
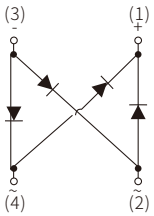
FEATURES

- Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability



MSBL



Schematic Symbol

MECHANICAL DATA

- Case : Molded plastic body
- Polarity : Polarity symbol marking on body

APPROVALS

RoHS | Compliance with 2011/65/EU

MAXIMUM RATINGS AND CHARACTERISTICS (T_A=25°C)

Parameter	Symbol	MSB 601	MSB 602	MSB 603	MSB 604	MSB 605	MSB 606	MSB 607	Unit
Marking		MSB 601	MSB 602	MSB 603	MSB 604	MSB 605	MSB 606	MSB 607	
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	
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	
Maximum average forward rectified current T_L=100°C	$I_{F(AV)}$	6.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	130.0							
Rating for fusing (t<8.3ms,Ta=25°C)	I^2t	127							A^2sec
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A=25°C	I_R	5.0							μA
Maximum DC Reverse Current at Rated DC Blocking Voltage T_A=125°C	I_R	500							μA
Maximum instantaneous forward voltage drop per leg at 6.0A	V_F	1.10							V
Typical junction capacitance (Note 1)	C_J	45.0							pF
Typical thermal resistance	$R_{\theta JA}$	55.0							°C/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to +150							°C

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

CHARACTERISTIC CURVES

Fig. 1- Derating Curve Output Rectified Current

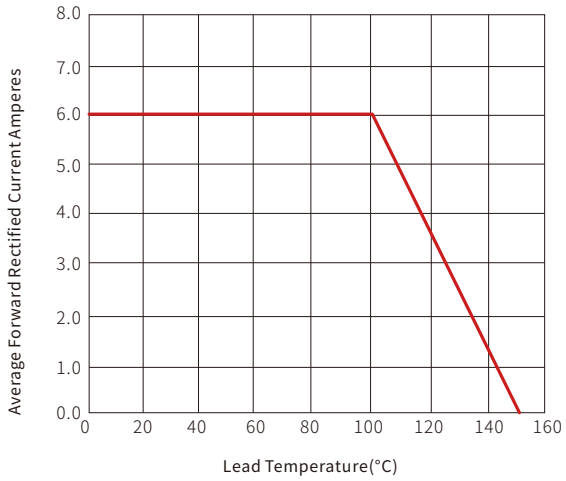


Fig. 2-Maximum Non-Repetitive Peak Forward Surge Current Perleg

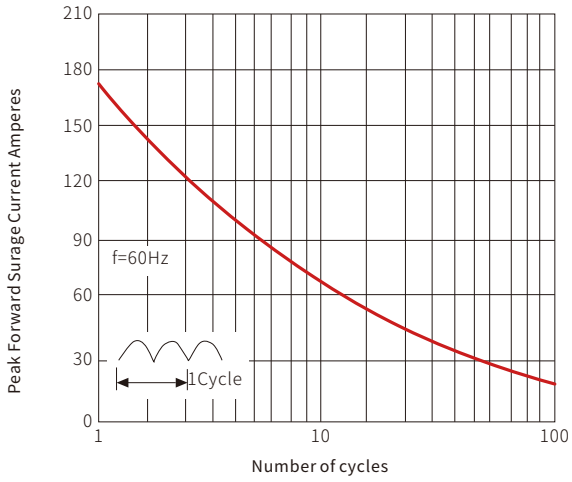


Fig. 3-Typical Forward Voltage Characteristics

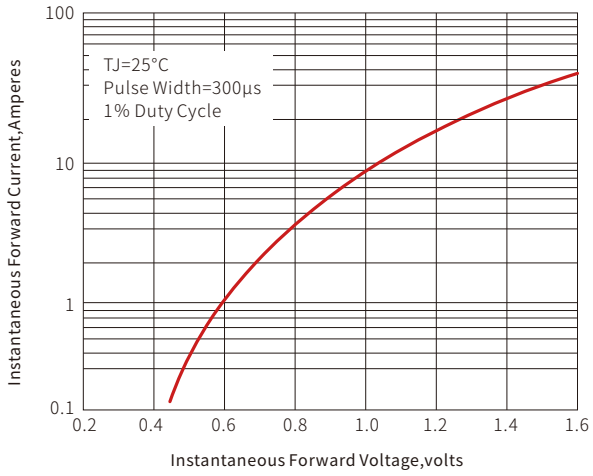
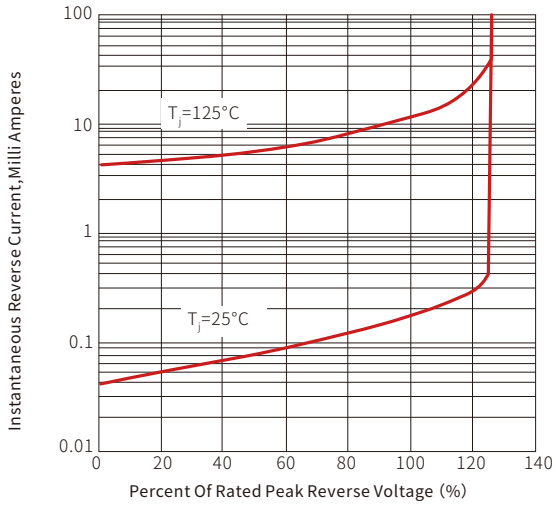
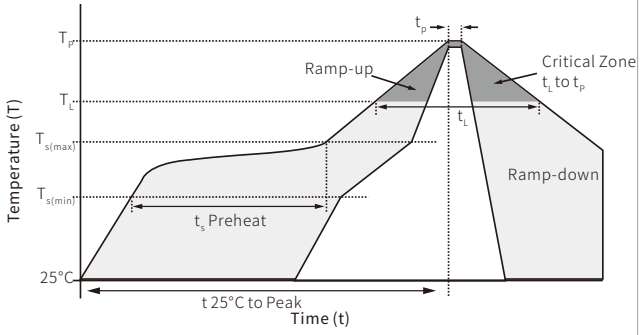


Fig. 4-Typical Reverse Leakage Characteristics

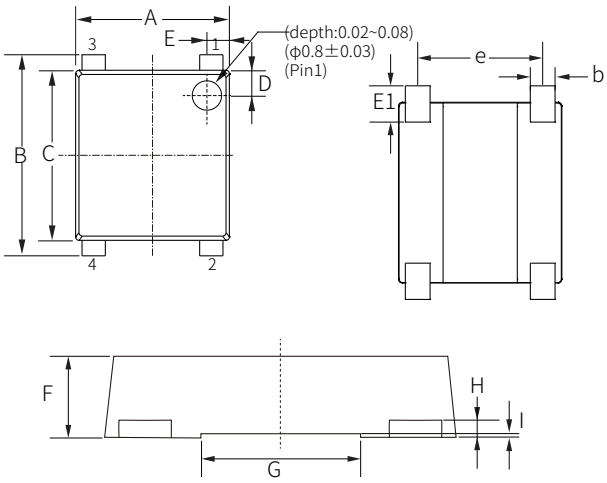


SOLDERING PARAMETERS

Reflow Condition		Lead–free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak		3°C/second max
	$T_{S(max)}$ to T_L - Ramp-up Rate	3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_P)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes max.
Do not exceed		260°C

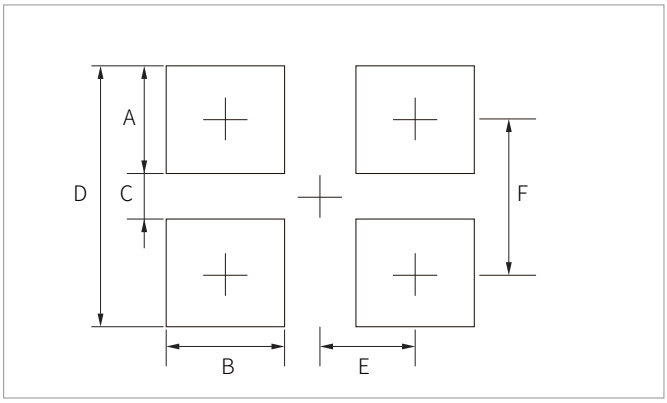


MSBL PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	6.50	6.70	0.256	0.264
B	7.90	8.60	0.311	0.339
C	7.20	7.40	0.283	0.291
D	0.95	1.25	0.037	0.049
E	0.95	1.25	0.037	0.049
E1	0.65	1.05	0.026	0.041
e	5.00	5.20	0.197	0.205
b	0.95	1.15	0.037	0.045
F	1.30	1.50	0.051	0.059
G	2.90	3.10	0.114	0.122
H	0.27	0.40	0.011	0.016
I	0.04	0.08	0.002	0.003

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
A	1.8	0.071
B	2.0	0.078
C	5.50	0.216
D	9.15	0.360
E	2.6	0.102
F	7.35	0.289

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
MSB601-MSB607	MSBL	3000PCS	13"

Headquarters
No.3387 Shendu Road
Pujiang I&E Park
Minhang Shanghai China
201000

Hotline
400-021-5756

Web
Https://www.semiware.com

Sales Center
Tel: 86-21-3463-7458
Email: sales18@semiware.com

Customer Service
Tel: 86-21-5484-1001
Email: sales17@semiware.com

Technical Support
Tel: 86-21-3463-7654
Email: fae01@semiware.com

Complaint & Suggestions
Tel: 86-21-3463-7172
Ext: 8868
Email: cs03@semiware.com

By QR Code
Website
Wechat

To find your local partner within Semiware' s global website: www.semiware.com