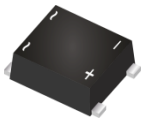
MR10L-30-LE

GLASS PASSIVATED FAST BRIDGE RECTIFIERS

Voltage	1000 V	Current	3 A

MSBL





Features

- Glass Passivated Chip Junction
- For surface mounted applications
- Thin profile package for space contrain utilization
- Fast reverse recovery time
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case: MSBL Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.008 ounces, 0.236 grams

Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum Rms Voltage	V_{RMS}	700	V
Maximum Dc Blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Current Per Diode	$I_{F(AV)}$	3	A
Peak Forward Surge Current : 8.3ms Single Half Sine-Wave Superimposed On Rated Load Per Diode	I_{FSM}	90	A
Peak Forward Surge Current : 1ms Single Half Sine-Wave Superimposed On Rated Load Per Diode	I_{FSM}	200	A
Typical Junction Capacitance Measured at 1 MHZ And Applied V_R = 4 V	C_J	55	pF
Rating for fusing (t<8.3ms)	I^2t	33.6	A^2s
Typical Thermal Resistance Per Diode	$R_{\theta JA}$ (1) $R_{\theta JC}$ (2)	135 20	°C/W
Operating Junction Temperature Range	T_J	-55~150	°C
Storage Temperature Range	T_{STG}	-55~150	°C

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Electrical Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Forward Voltage Per Diode	V_F	I_F = 1 A, T_J = 25 °C	-	0.97	-	V
		I_F = 3 A, T_J = 25 °C	-	1.12	1.30	
		I_F = 1 A, T_J = 125 °C	-	0.77	-	
		I_F = 3 A, T_J = 125 °C	-	0.94	-	
Reverse Current Per Diode	I_R	V_R = 1000 V, T_J = 25 °C	-	-	5	uA
		V_R = 1000 V,T_J= 125 °C	-	7	500	
Reverse Recovery Time	T_{RR}	I_F = 0.5 A, I_R = 1 A, I_{RR} = 0.25 A, T_J = 25 °C	-	-	250	ns

NOTES:

1. Mounted on a FR4 PCB, single-sided copper, mini pad.
2. Mounted on a FR4 PCB, single-sided copper, with 100cm^2 copper pad area.

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TYPICAL CHARACTERISTIC CURVES

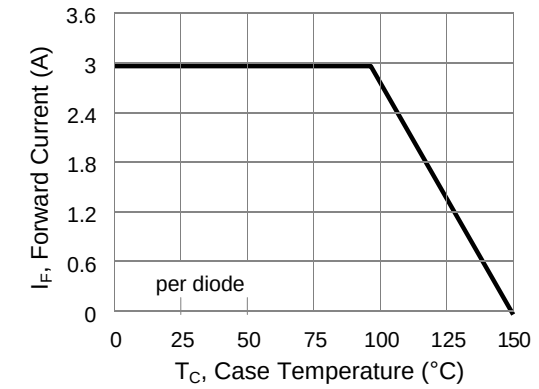


Fig.1 Forward Current Derating Curve

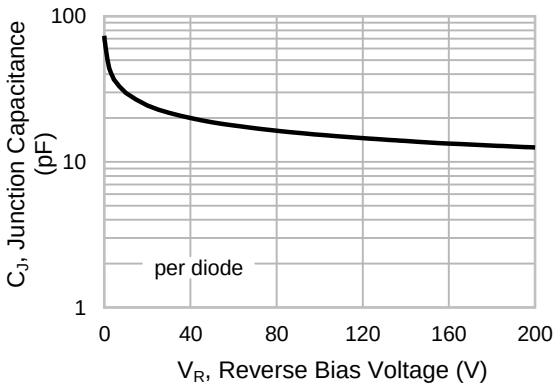


Fig.2 Typical Junction Capacitance

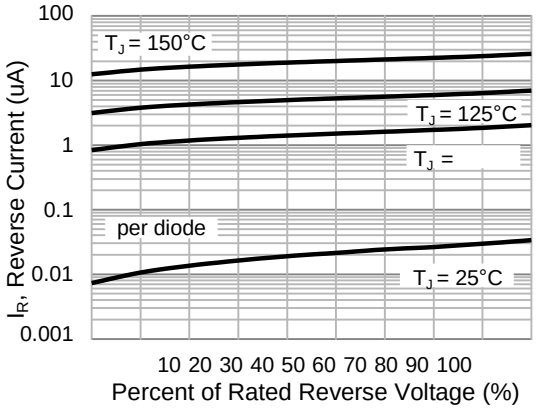


Fig.3 Typical Reverse Characteristics

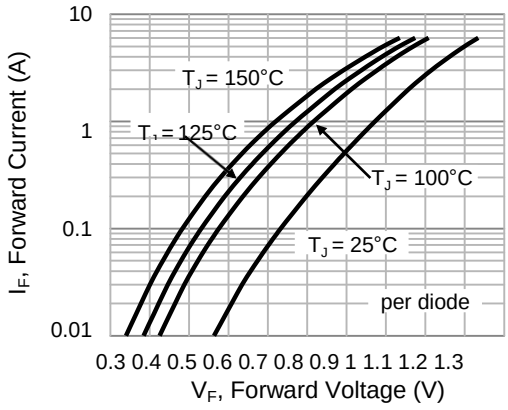


Fig.4 Typical Forward Characteristics

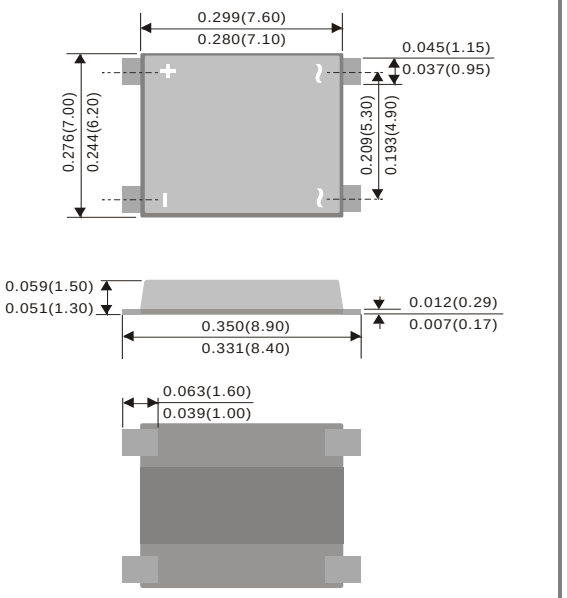
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Part No Packing Code Version

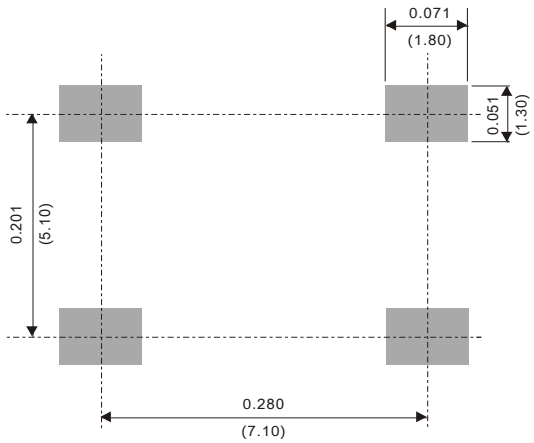
Part No Packing Code	Package Type	Packing Type	Marking	Version
MR10L-30-LE_R2_00001	MSBL	3K / 13" Reel	LMR10L30	Halogen free

Packaging Information & Mounting Pad Layout

MSBL Dimension — Unit: inch(mm)



MSBL Pad Layout — Unit: inch(mm)



MR10L-30-LE

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