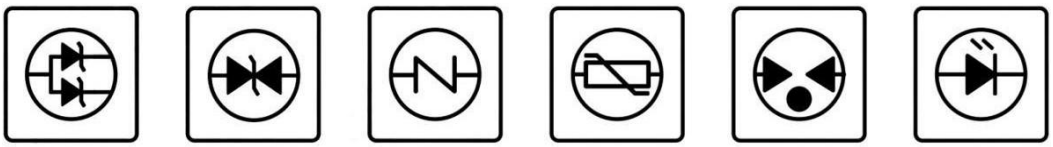
MSKSEMI 美森科
SEMICONDUCTOR



MBR130T1G-MS

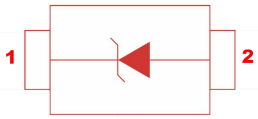
Product specification

MBR130T1G-MS

FEATURES

- Guardring for Stress Protection
- Low Forward Voltage
- 125°C Operating Junction Temperature
- Epoxy Meets UL 94 V−0 @ 0.125 in
- Package Designed for Optimal Automated Board Assembly
- ESD Ratings: Machine Model, C;
  Human Body Model, 3
- We declare that the material of product compliance with
- RoHS requirements and Halogen Free.

Reference News

SOD-123	PIN ASSIGNMENT	MARKING
		S3*

MAXIMUM RATINGS(Ta = 25ºC)

Parameter	Symbol	Limits	Unit
Maximum repetitive peak reverse voltage	VRRM	30	V
Working Peak Reverse Voltage	VRWM		
Maximum DC blocking voltage	VR		
Average Rectified Forward Current (Rated VR) TL = 65°C	IF(AV)	1	A
Non−Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions, Halfwave, Single Phase, 60 Hz)	IFSM	5.5	A
Thermal resistance (Note 1)	RθJA	230	℃/W
	RθJL	108	
Operating junction and storage temperature range	TJ	–65 ~ +125	℃
Voltage Rate of Change (Rated VR)	dv/dt	1000	V/μs

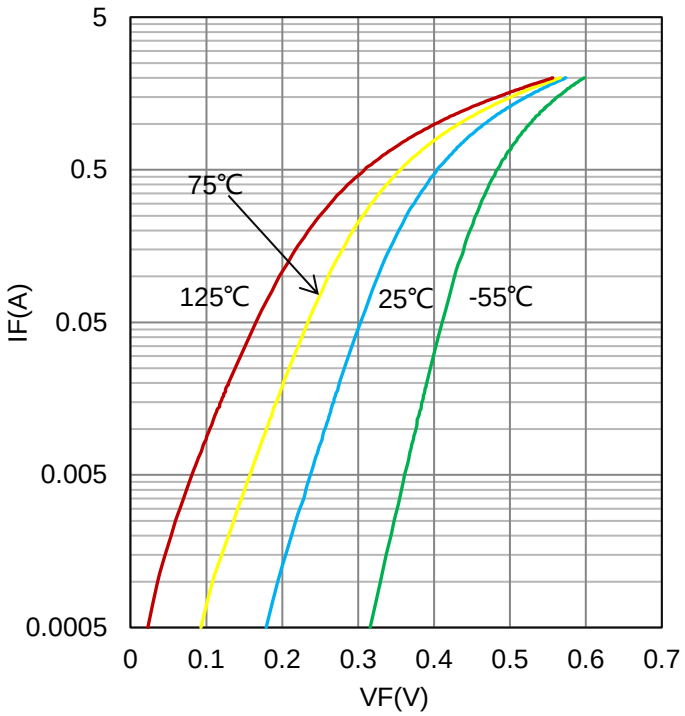
1. FR−4 or FR−5 = 3.5 × 1.5 inches using a 1 inch Cu pad

ELECTRICAL CHARACTERISTICS (Ta= 25℃)

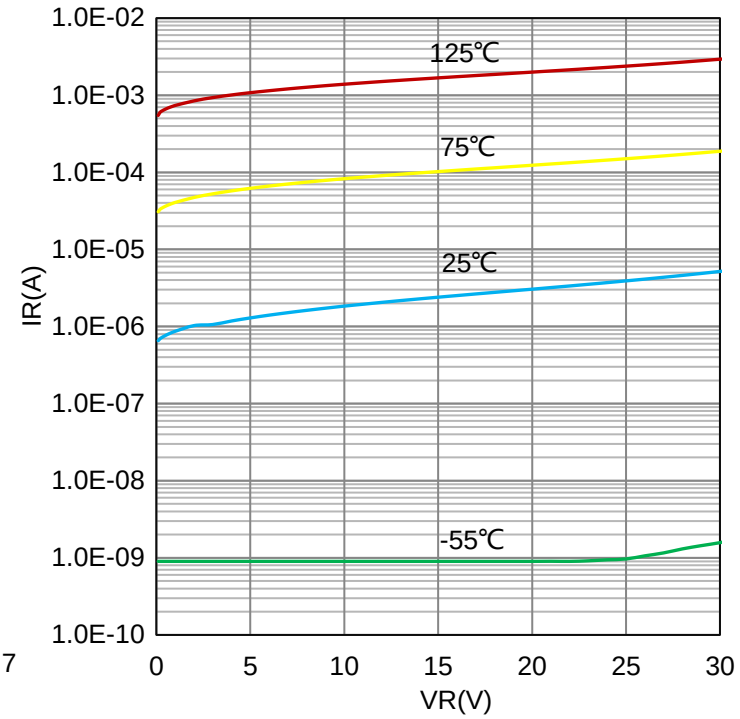
Characteristic	Symbol	Min	Typ.	Max	Unit
Reverse Breakdown Voltage (IR=500μA)	VBR	30	-	-	V
Maximum instantaneous forward Voltage(Note 2) (IF = 0.1 A, TJ = 25°C) (IF = 0.7 A, TJ = 25°C) (IF = 1.0 A, TJ = 25°C)	VF	- - -	- - 0.47	0.35 0.45 -	V
Maximum Instantaneous Reverse Current (Note 2) (VR=5V) (VR=30V)	IR	- -	- -	10 60	μA

2. Pulse Test: Pulse Width = 300 μs, Duty Cycle ≤ 2%.

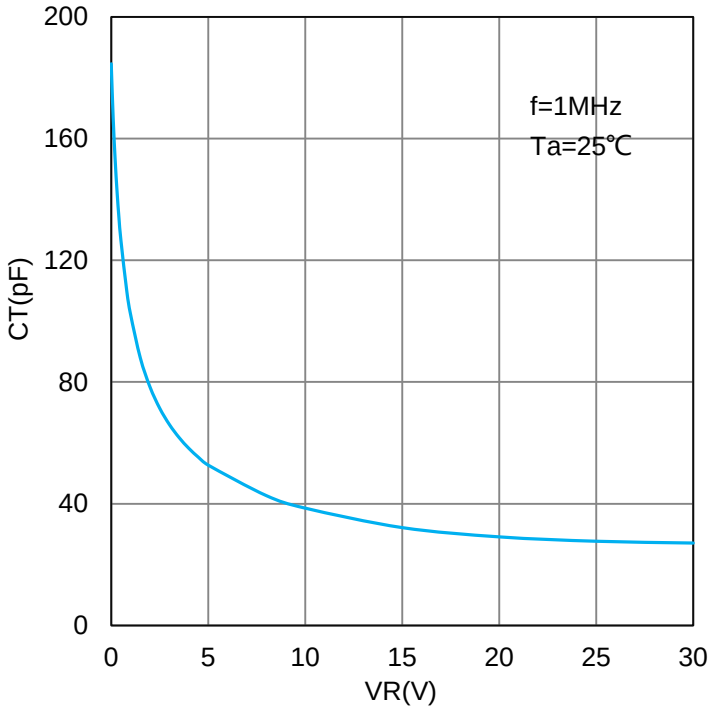
ELECTRICAL CHARACTERISTICS CURVES



IF vs. VF

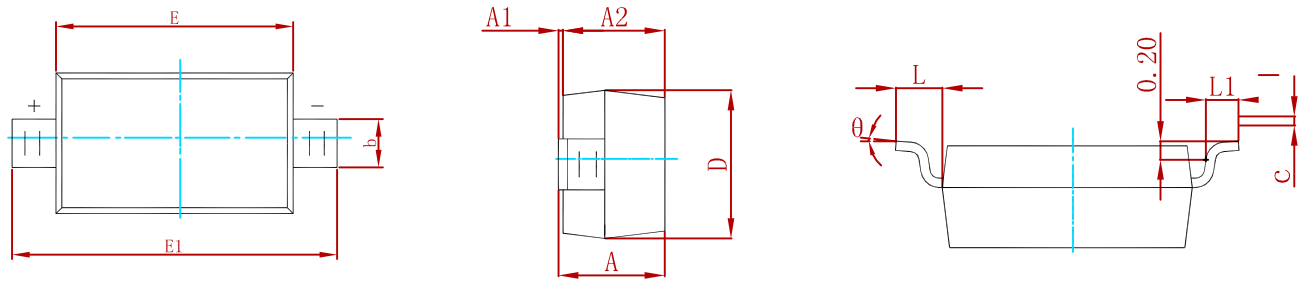


IR vs. VR



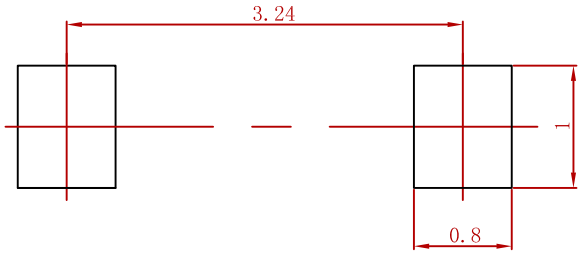
CT vs. VR

PACKAGE MECHANICAL DATA



Symbol	Dimensions In MillimeterDimensions In Inches			
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:
1.Controllng dlmenslon:in mlllmeters.
2.General tolerance:± 0.05mm.
3.The pad layout Is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
MBR130T1G-MS	SOD-123	3000

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