

Surface Mount Schottky Barrier Diode

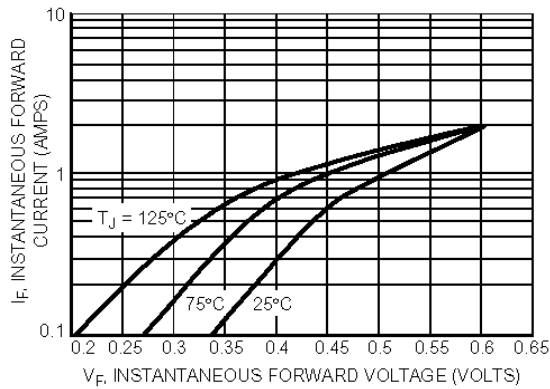
- Low Forward Voltage

Top View
Marking Code: **MC**
Simplified outline SOD-123FL and symbol

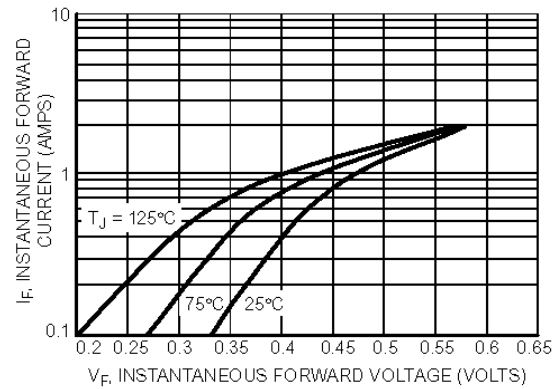
Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Working Peak Reverse Voltage	V_{RWM}	30	V
DC Blocking Voltage	V_R	30	V
Average Rectified Forward Current (Rated V_R) $T_L = 65^\circ\text{C}$	$I_{F(AV)}$	1	A
Non-repetitive Peak Surge Forward Current ($t \leq 8.3 \text{ ms}$)	I_{FSM}	25	A
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	$230^{1)}$	$^\circ\text{C/W}$
Thermal Resistance, Junction to Lead	$R_{\theta JL}$	$108^{1)}$	$^\circ\text{C/W}$
Operating Junction Temperature	T_j	- 65 to + 125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 125	$^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
Forward Voltage at $I_F = 0.1 \text{ A}$ at $I_F = 0.7 \text{ A}$	V_F	- -	0.35 0.5	V
Reverse Breakdown Voltage at $I_R = 1 \text{ mA}$	$V_{(BR)R}$	30	-	V
Reverse Current at $V_R = 30 \text{ V}$ at $V_R = 5 \text{ V}$	I_R	- -	200 50	μA

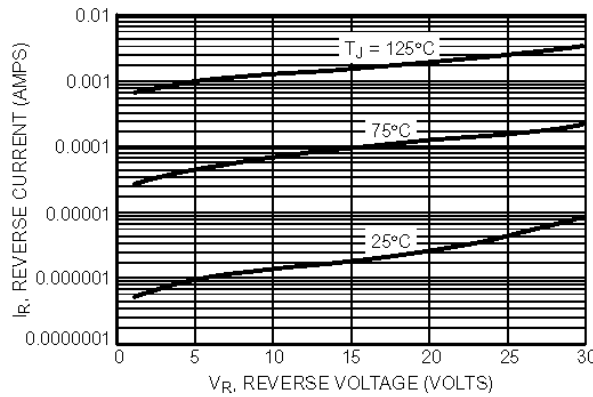
MBR130W



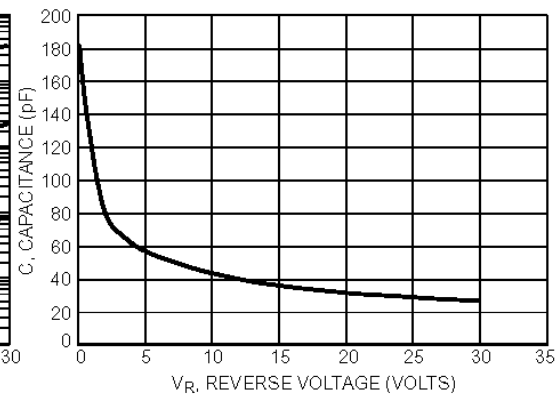
Maximum Forward Voltage



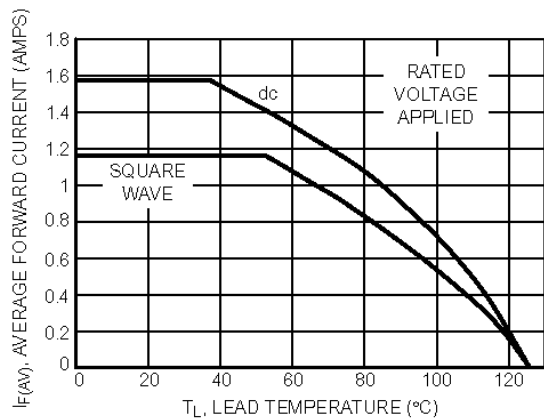
Typical Forward Voltage



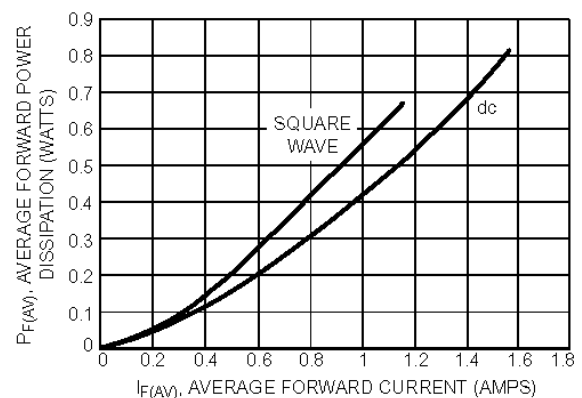
Typical Reverse Current



Typical Capacitance



Current Derating, Lead, $R_{\theta JL} = 108^\circ\text{C/W}$



Forward Power Dissipation

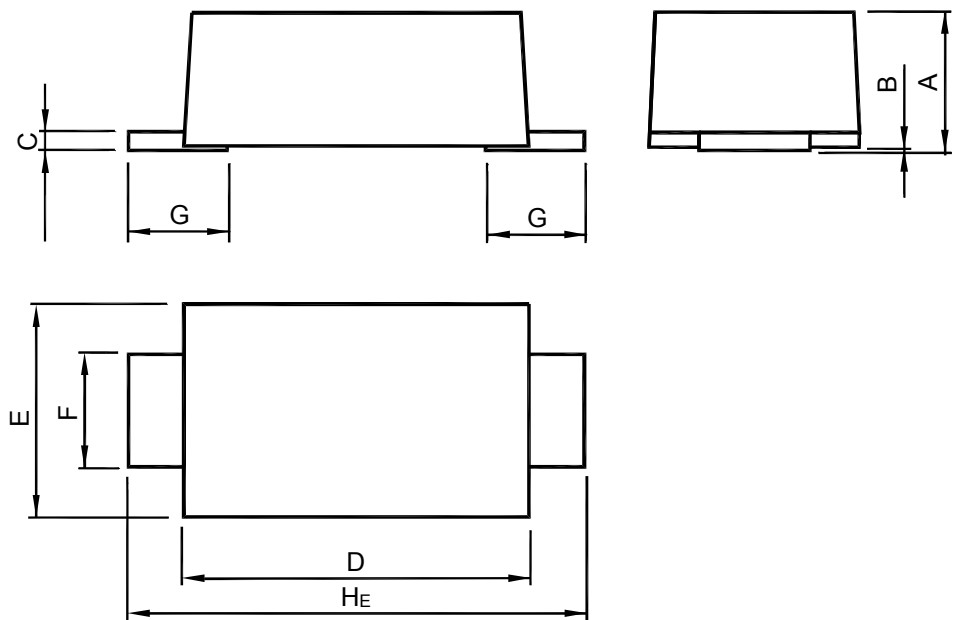
TOP DYNAMIC

MBR130W

PACKAGE OUTLINE

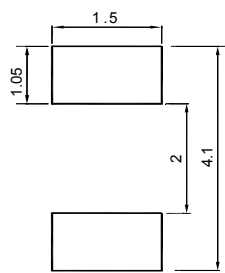
Plastic surface mounted package; 2 leads

SOD-123FL



UNIT	A	B	C	D	E	F	G	H _E
mm	1.08 0.88	0.1 0	0.2 0.1	2.9 2.6	1.9 1.7	1.1 0.8	0.9 0.7	3.9 3.5

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-123FL	8	4 ± 0.1	0.157 ± 0.004	178	7	3,000

TOP DYNAMIC



ISO14001 : 2004
Certificate No. 121505007

ISO 9001 : 2008
Certificate No. 02114012

ISO 9001 : 2007
Certificate No. 05191506008

IECQ QC 080000
Certificate No. E2018000714002

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