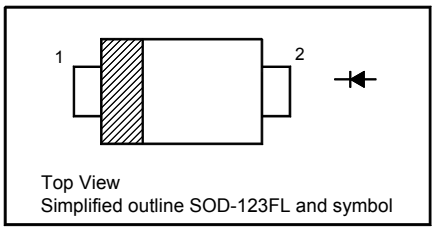
MBR130FW

Surface Mount Schottky Barrier Rectifier

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-123FL and symbol

Features

• Low forward voltage

Absolute Maximum Ratings (T_a = 25℃)

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= 75℃	$I_{F(AV)}$	1	A
Non-Repetitive Peak Surge Forward Current (t ≤ 8.3 ms)	I_{FSM}	25	A
Operating Junction Temperature Range	T_j	- 65 to + 125	℃
Storage Temperature Range	T_{stg}	- 65 to + 125	℃

Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal Resistance from Junction to Ambient [1)]	$R_{\theta JA}$	230	℃/W
Thermal Resistance from Junction to Lead [1)]	$R_{\theta JL}$	108	℃/W

[1)] Device mounted on FR-4 substrate PC board, 2oz copper, with 1-inch square copper plate.

Characteristics at T_a = 25℃

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

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Electrical Characteristic Curves

Fig 1. Average Current Derating Curve

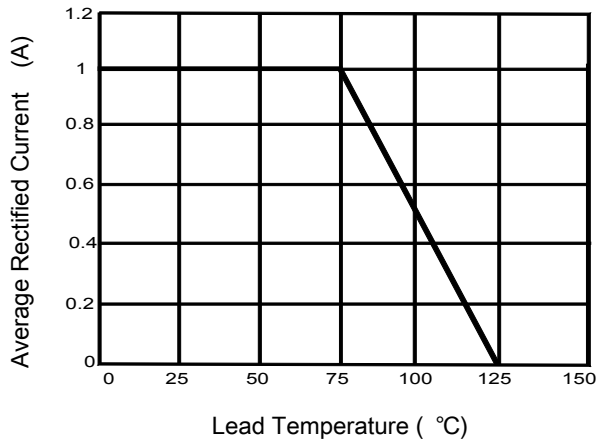


Fig 2. Forward Characteristic Curve

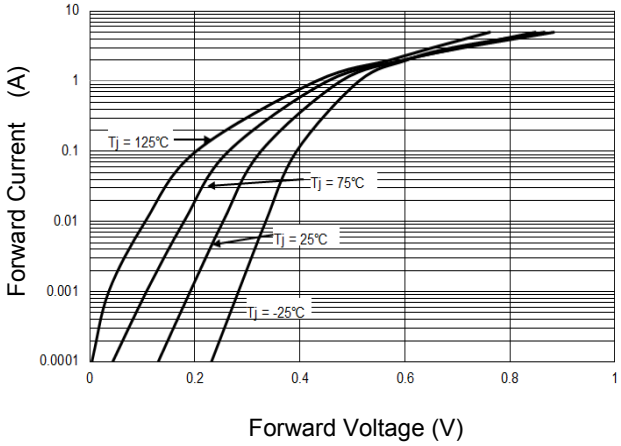


Fig 3. Reverse Characteristic Curve

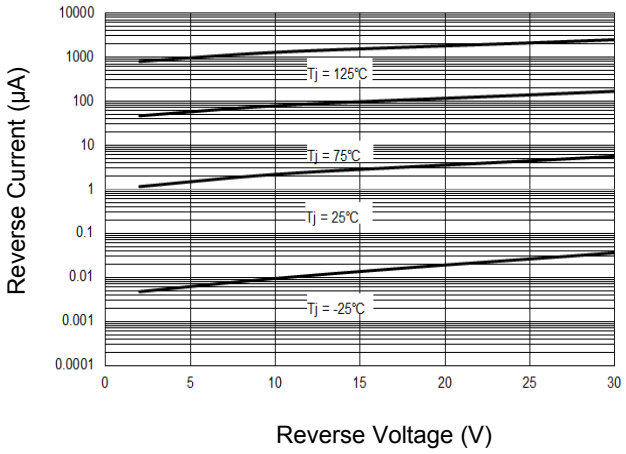
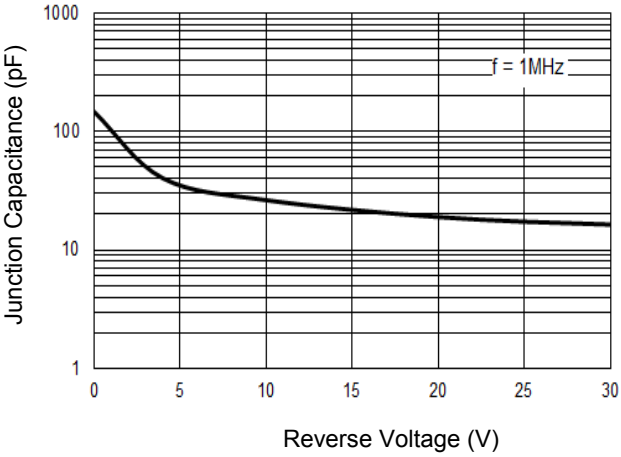
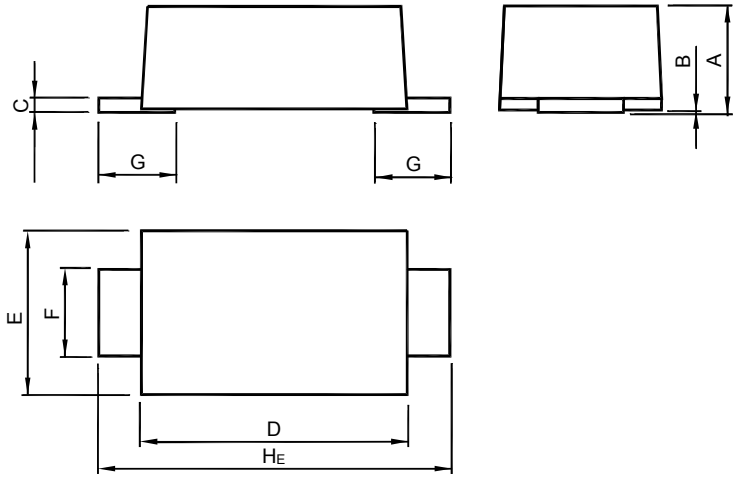


Fig 4. Junction Capacitance



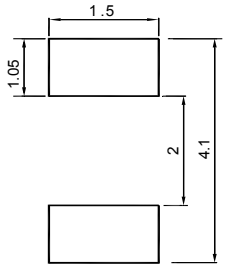
PACKAGE OUTLINE

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 2.7	1.9 1.7	1.1 0.8	0.85 0.45	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

Marking information

" MC " = Part No.
" III " = Cathode line
Font type: Arial

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