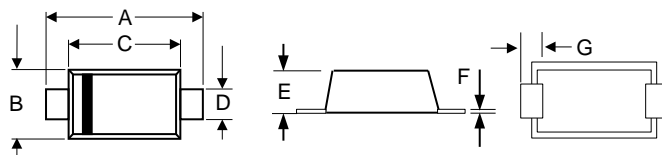


### Features

- \* Low forward voltage
- \* High conductance
- \* Marking Code: SQ



**RoHS**  
COMPLIANT



SOD-123F				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.138	0.154	3.50	3.90
B	0.067	0.075	1.70	1.90
C	0.102	0.114	2.60	2.90
D	0.031	0.043	0.80	1.10
E	0.035	0.043	0.88	1.08
F	0.004	0.008	0.10	0.20
G	0.028	0.035	0.70	0.90

### Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	40	V
Reverse Voltage	V <sub>R</sub>	40	V
Average Rectified Forward Current	I <sub>F(AV)</sub>	0.5	A
Peak Forward Surge Current (8.3 ms Single Half Sine-wave)	I <sub>FSM</sub>	5.5	A
Thermal Resistance Junction to Lead <sup>1)</sup>	R <sub>θJL</sub>	118	°C/W
Thermal Resistance Junction to Ambient <sup>2)</sup>	R <sub>θJA</sub>	206	°C/W
Operating Junction Temperature Range	T <sub>j</sub>	- 65 to + 150	°C
Storage Temperature Range	T <sub>stg</sub>	- 65 to + 150	°C

Notes:

1) Device mounted on FR-4 PCB 0.013 mm.

2) 1 inch" pad size (1 X 0.5 inch for each lead ) on FR4 board.

### Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Max.	Unit
Forward Voltage at I <sub>F</sub> = 0.5 A at I <sub>F</sub> = 1 A at I <sub>F</sub> = 0.5 A, T <sub>a</sub> = 100°C at I <sub>F</sub> = 1 A, T <sub>a</sub> = 100°C	V <sub>F</sub>	0.51 0.62 0.46 0.61	V
Reverse Current at V <sub>R</sub> = 20 V at V <sub>R</sub> = 40 V at V <sub>R</sub> = 20 V, T <sub>a</sub> = 100°C at V <sub>R</sub> = 40 V, T <sub>a</sub> = 100°C	I <sub>R</sub>	10 20 5 13	μA μA mA mA

### Ratings and Characteristic Curves

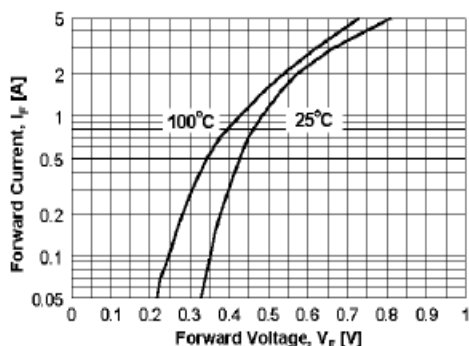


Figure 1. Forward Voltage Characteristics

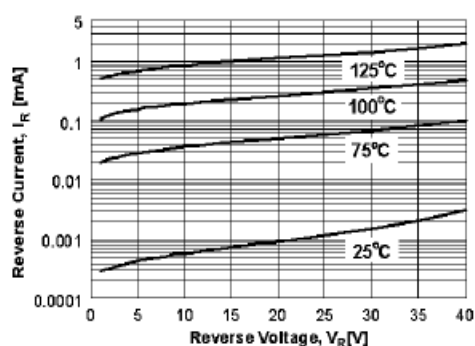


Figure 2. Reverse Current vs Reverse Voltage

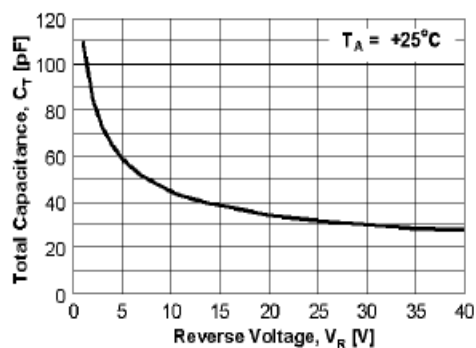


Figure 3. Total Capacitance



## MBR0540W

### *Surface Mount Schottky Barrier Diode*

#### Ordering Information

Part No.	Package	Packing Code	Packing
MBR0540W	SOD-123F	R30	3000pcs/Reel

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