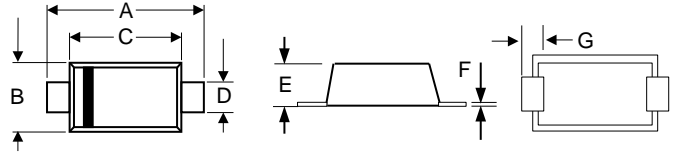


### Features

- \* Very low forward voltage
- \* High Current Capability
- \* Marking Code: SC



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 Reverse Voltage	$V_{RRM}$	20	V
Working Peak Reverse Voltage	$V_{RWM}$	20	V
DC Reverse Voltage	$V_R$	20	V
Average Rectified Forward Current	$I_{F(AV)}$	0.5	A
Peak Forward Surge Current (8.3 ms Single Half Sine-wave)	$I_{FSM}$	5.5	A
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	340	°C/W
Thermal Resistance Junction to Lead	$R_{\theta JL}$	150	°C/W
Junction Temperature	$T_j$	- 65 to + 150	°C
Storage Temperature	$T_{stg}$	- 65 to + 150	°C

Note: 1) Following any rated load condition and with rated  $V_{RRM}$  applied.

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

Parameter	Symbol	Max.	Unit
Forward Voltage at I <sub>F</sub> = 0.1 A, T <sub>J</sub> = 25°C at I <sub>F</sub> = 0.5 A, T <sub>J</sub> = 25°C at I <sub>F</sub> = 0.1 A, T <sub>J</sub> = 100°C at I <sub>F</sub> = 0.5 A, T <sub>J</sub> = 100°C	V <sub>F</sub>	0.375 0.44 0.26 0.36	V
Reverse Current at V <sub>R</sub> = 10 V, T <sub>J</sub> = 25°C at V <sub>R</sub> = 20 V, T <sub>J</sub> = 25°C at V <sub>R</sub> = 10 V, T <sub>J</sub> = 100°C at V <sub>R</sub> = 20 V, T <sub>J</sub> = 100°C	I <sub>R</sub>	40 150 3 7	μA μA mA mA
Total Capacitance at V <sub>R</sub> = 5 V (test signal range 100 KHz to 1 MHz), T <sub>J</sub> = 25°C	C <sub>tot</sub>	110	pF

### Ratings and Characteristic Curves

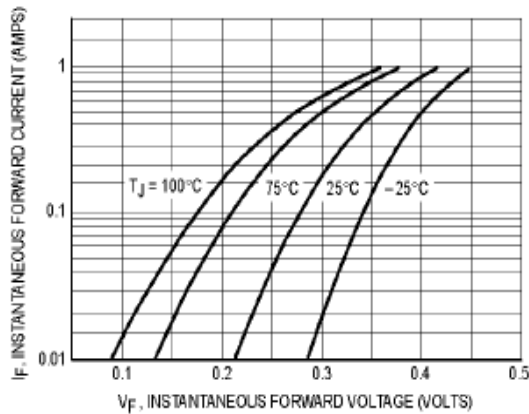


Figure 1. Typical Forward Voltage

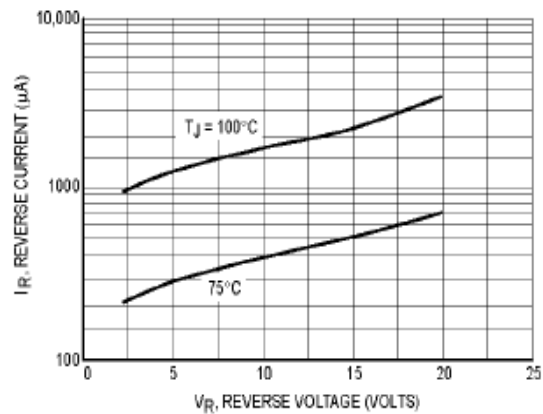


Figure 2. Typical Reverse Current

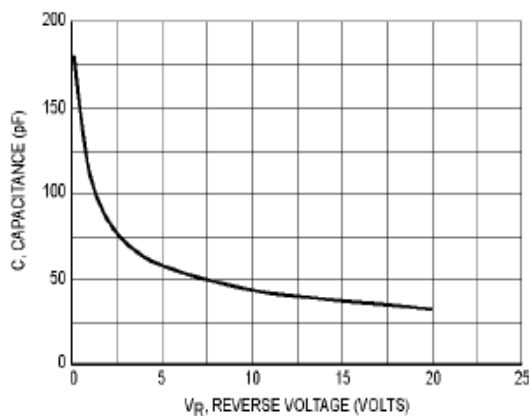


Figure 3. Typical Capacitance

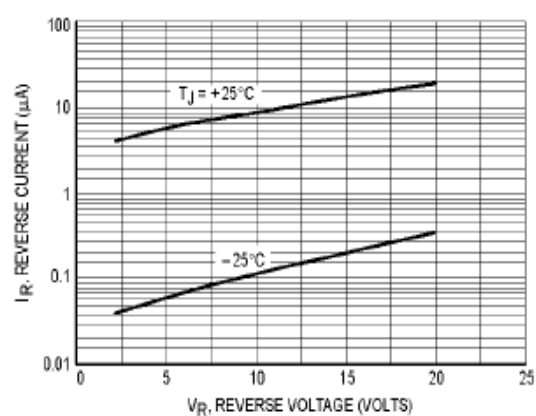


Figure 4. Typical Reverse Current



# MBR0520W

## Surface Mount Schottky Barrier Diode

### Ordering Information

Part No.	Package	Packing Code	Packing
MBR0520W	SOD-123F	R30	3000pcs/Reel

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