

Surface Mount Schottky Barrier Diode

Feature

- High Current Capability
- Low Forward Voltage Drop

SOD-523



Mechanical Data

- SOD-523 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Device Marking Code

RB520SM5-40	D/D1
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Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{RRM}	Repetitive Peak Reverse Voltage	40	V
V_R	DC Blocking Voltage	40	V
I_O	Continuous Forward Current	200	mA
I_{FSM}	Non-Repetitive Peak Forward Current ^{*1}	1	A
P_D	Power Dissipation	200	mW
T_J	Junction Temperature	125	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 to +125	$^\circ\text{C}$

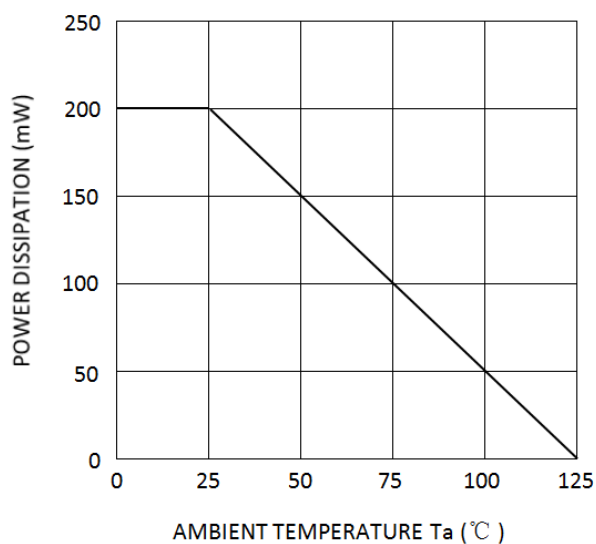
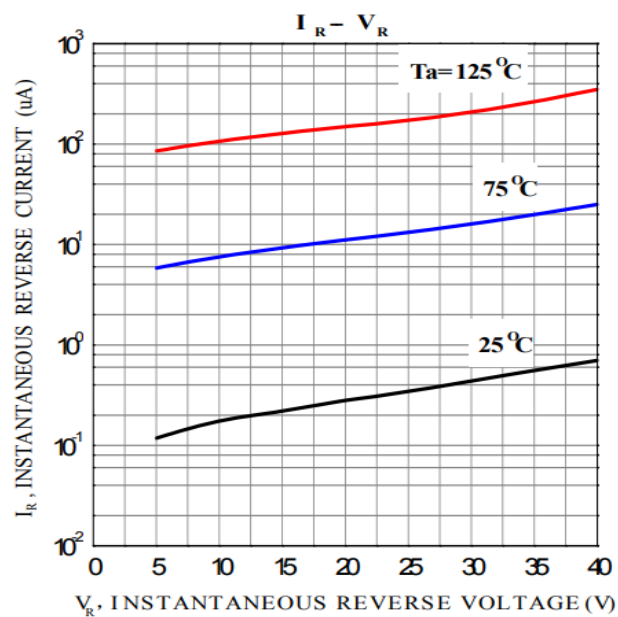
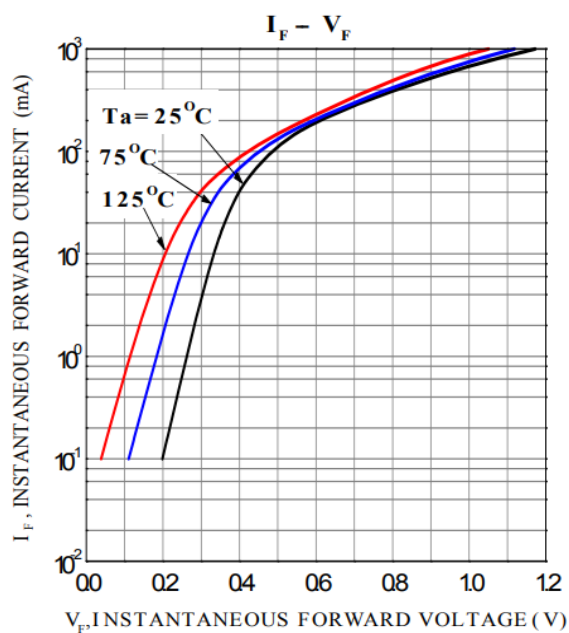
^{*1} 8.3 ms single half sine-wave

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

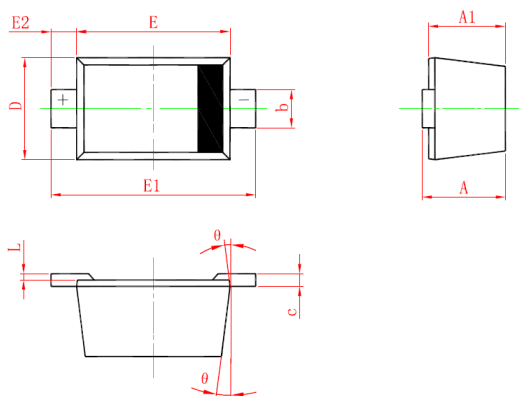
Symbol	Parameter	Test Conditions	Min	Max	Units
V_F	Forward Voltage	$I_F = 10\text{mA}$		0.39	V
		$I_F = 100\text{mA}$		0.55	V
V_R	Breakdown Voltage	$I_R = 100\mu\text{A}$	40		V
I_R	Reverse Current	$V_R = 10\text{V}$		1	μA
		$V_R = 40\text{V}$		10	μA



Characteristic Curves



SOD-523 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.380	0.010	0.015
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	