



SSCS0520D1

Schottky Barrier Diode

● Features

- ✧ Low Forward Voltage Drop
- ✧ Guard Ring Construction for Transient Protection
- ✧ High Conductance
- ✧ Also Available in Lead Free Version

● PIN configuration



SOD-123

● Applications

- ✧ Low Voltage Rectification
- ✧ High-Efficiency DC-DC Conversion
- ✧ Switch Mode Power Supply
- ✧ Inverse Polarity Protection



Circuit Diagram



Marking

● Absolute maximum rating @T_A=25°C

Parameter	Symbol	Value	Unit
Peak Repetitive Peak Reverse Voltage	V _{RRM}	20	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS reverse voltage reverse voltage (DC)	V _{RMS}	14	V
Average Rectified Output Current	I _O	500	mA
Non-repetitive Peak Forward Surge Current @t=8.3ms	I _{FSM}	5.5	A
Power Dissipation	P _D	500	mW
Typical Thermal Resistance	R _{θJA}	200	°C/W
Operating Temperature	T _J	-40 ~ +125	°C
Storage Temperature	T _{STG}	-50 ~ +150	°C
Voltage rate of change	dv/dt	1000	V/μs

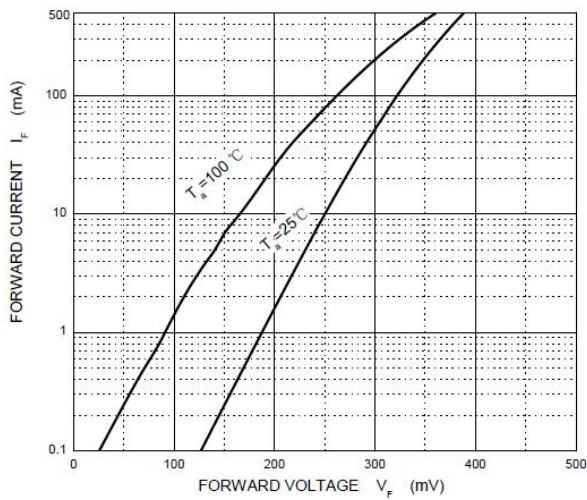


● Electrical Characteristics @ $T_A=25^\circ\text{C}$

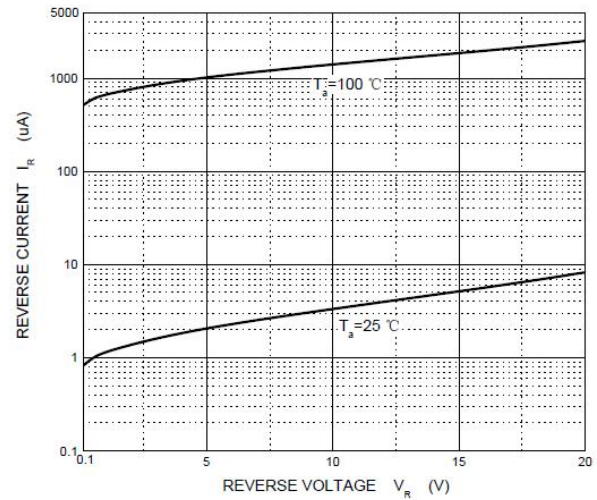
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V_R	$I_R = 250\mu\text{A}$	20			V
Forward Voltage	V_F	$I_F = 0.1\text{A}$			0.33	V
		$I_F = 0.5\text{A}$			0.39	
Reverse Current	I_R	$V_R = 10\text{V}$			75	μA
		$V_R = 20\text{V}$			250	
Junction Capacitance	C_J	$V_R = 1\text{V}, f = 1\text{MHz}$		170		pF

● Typical Performance Characteristics

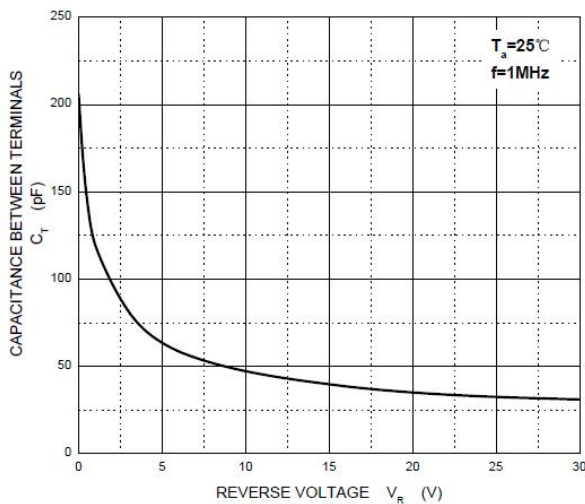
Forward Characteristics



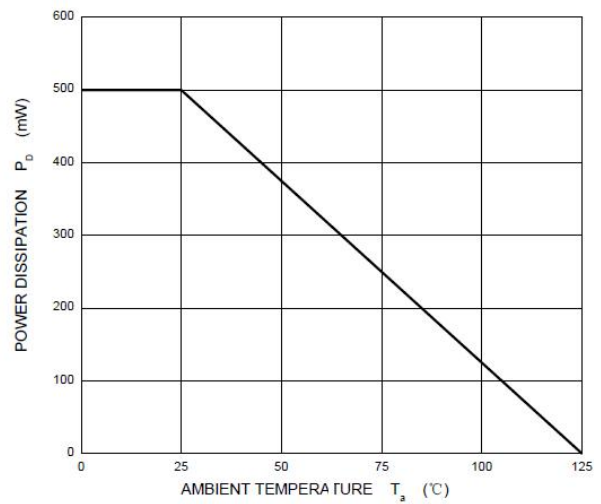
Reverse Characteristics



Capacitance Characteristics



Power Derating Curve





● Package Information

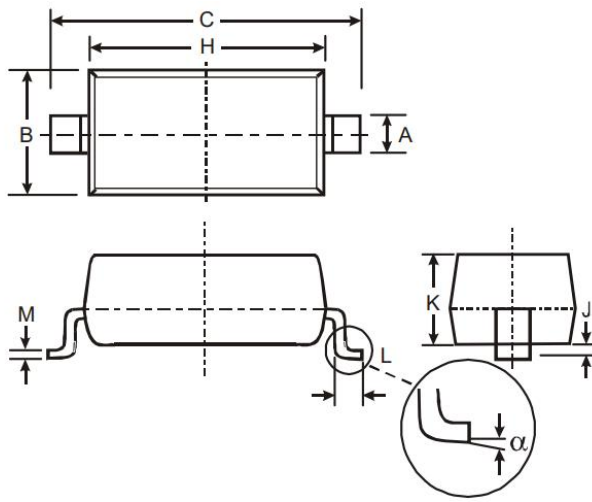
Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSCS0520D1	SOD-123	SD	3000	7 Inch

Mechanical Data

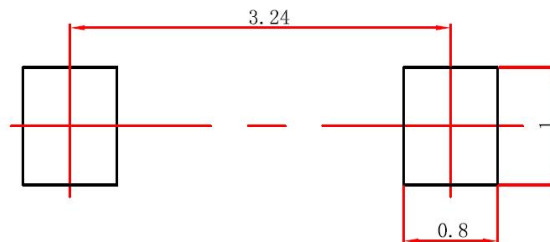
Case: SOD-123

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters	
	Min	Max
A	0.45	0.65
B	1.50	1.70
C	3.55	3.85
H	2.6	2.8
J	0.00	0.10
K	1.05	1.15
L	0.25	0.45
M	0.08	0.15
α	0	8°

Recommended Pad outline (Unit: mm)





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