



WSR4020D1A

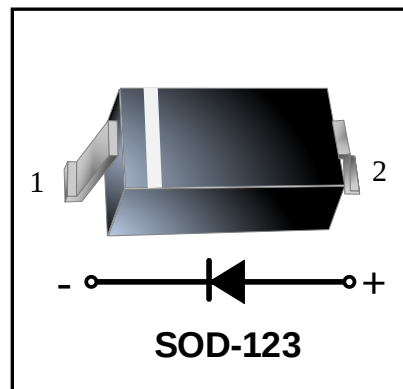
Schottky Barrier Diode

Features

- Low Forward Voltage Drop
- RoHS Compliant / Green EMC
- Cathode Band / Device marking

Applications

- Flat Lead SOD-123 Thin SMD Package
- Switch Mode Power Supply
- Low Voltage Rectification
- High Efficiency DC-to-DC Conversion
- Inverse Polarity Protection



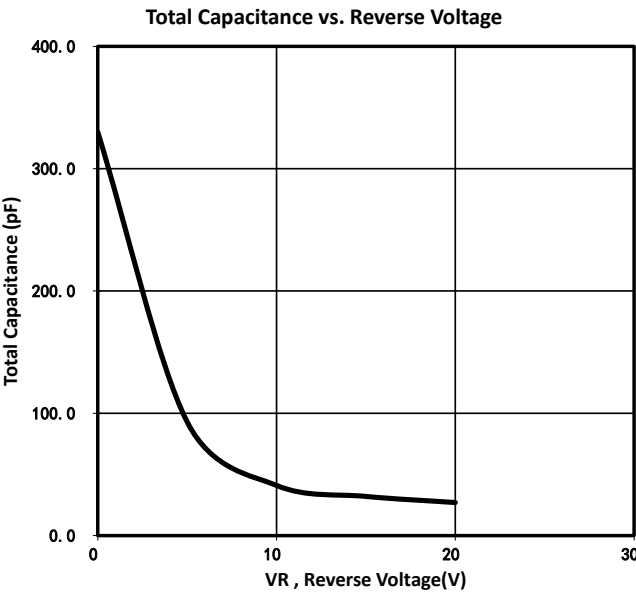
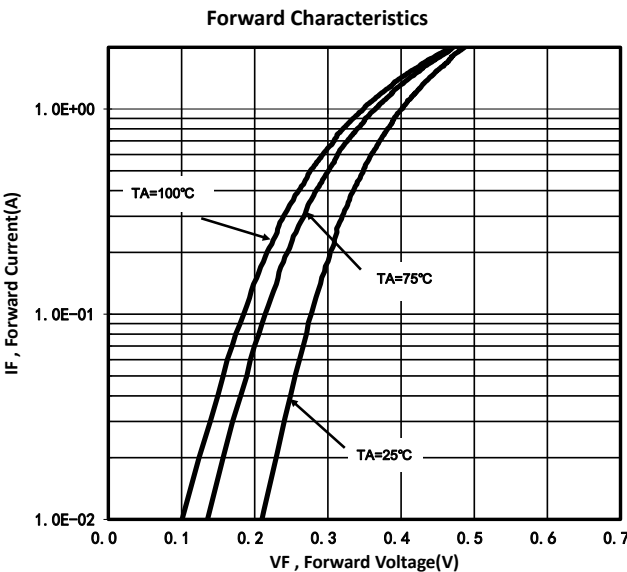
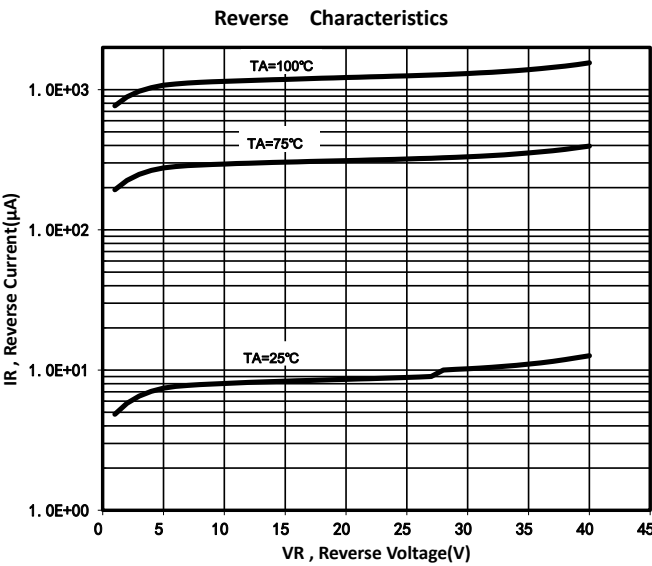
Absolute Maximum Rating

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Forward Current	I_F	2.0	A
Non-Repetitive Peak Forward Current @ $t=8.3ms$	I_{FSM}	8.0	A
Power Dissipation	P_D	500	mW
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	200	$^{\circ}C/W$
Operating and Storage Temperature Range	T_J, T_{stg}	-55 ~ +150	$^{\circ}C$

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

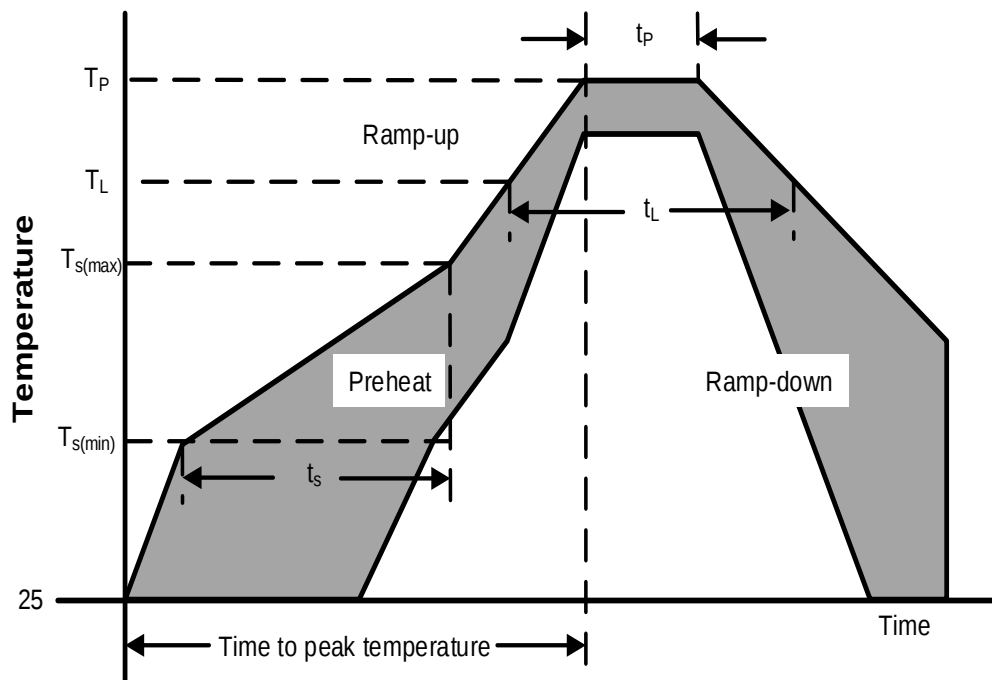
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Breakdown Voltage	V_{BR}	$I_R = 1mA$	40	-	-	V
Reverse Voltage Leakage Current	I_R	$V_R = 10V$	-	-	50	μA
		$V_R = 40V$	-	-	100	
Forward Voltage	V_F	$I_F = 0.5A$	-	-	430	mV
		$I_F = 1A$	-	-	490	
		$I_F = 2A$	-	-	580	
Diode Capacitance	C_D	$V_R = 5V, f=1MHz$	-	100	-	pF

Typical Characteristics



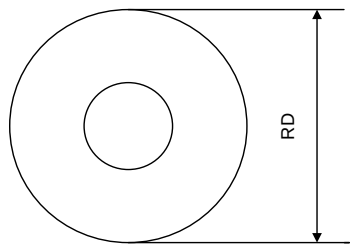
Soldering Parameters

Reflow Condition		Pb – Free assembly
Pre Heat	Temperature Min ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 190 secs
Average ramp up rate (Liquidus Temp) (T_L) to peak		5°C/second max
$T_{s(max)}$ to T_L ——Ramp-up Rate		5°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_P)		260+0/-5 °C
Time within actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		5°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes Max.
Do not exceed		280°C

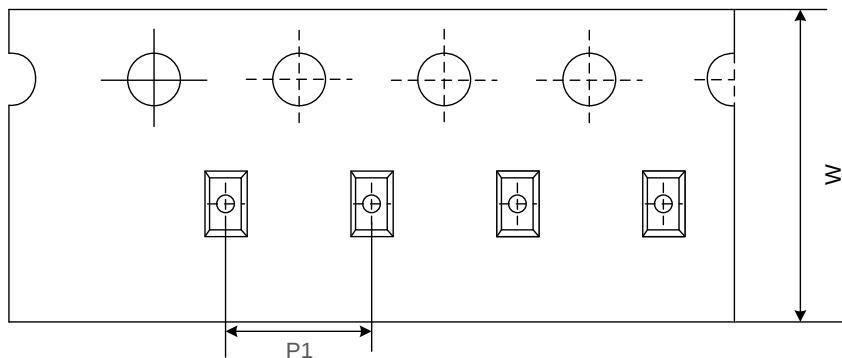


Tape And Reel Information

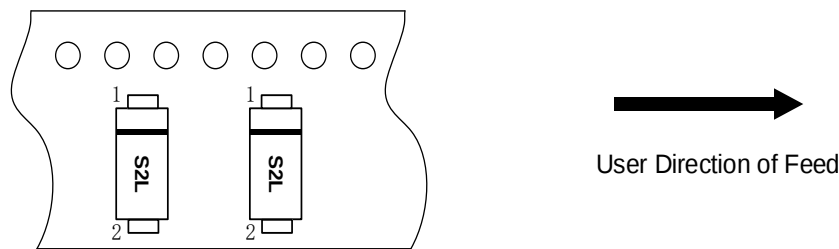
Reel Dimensions



Tape Dimensions

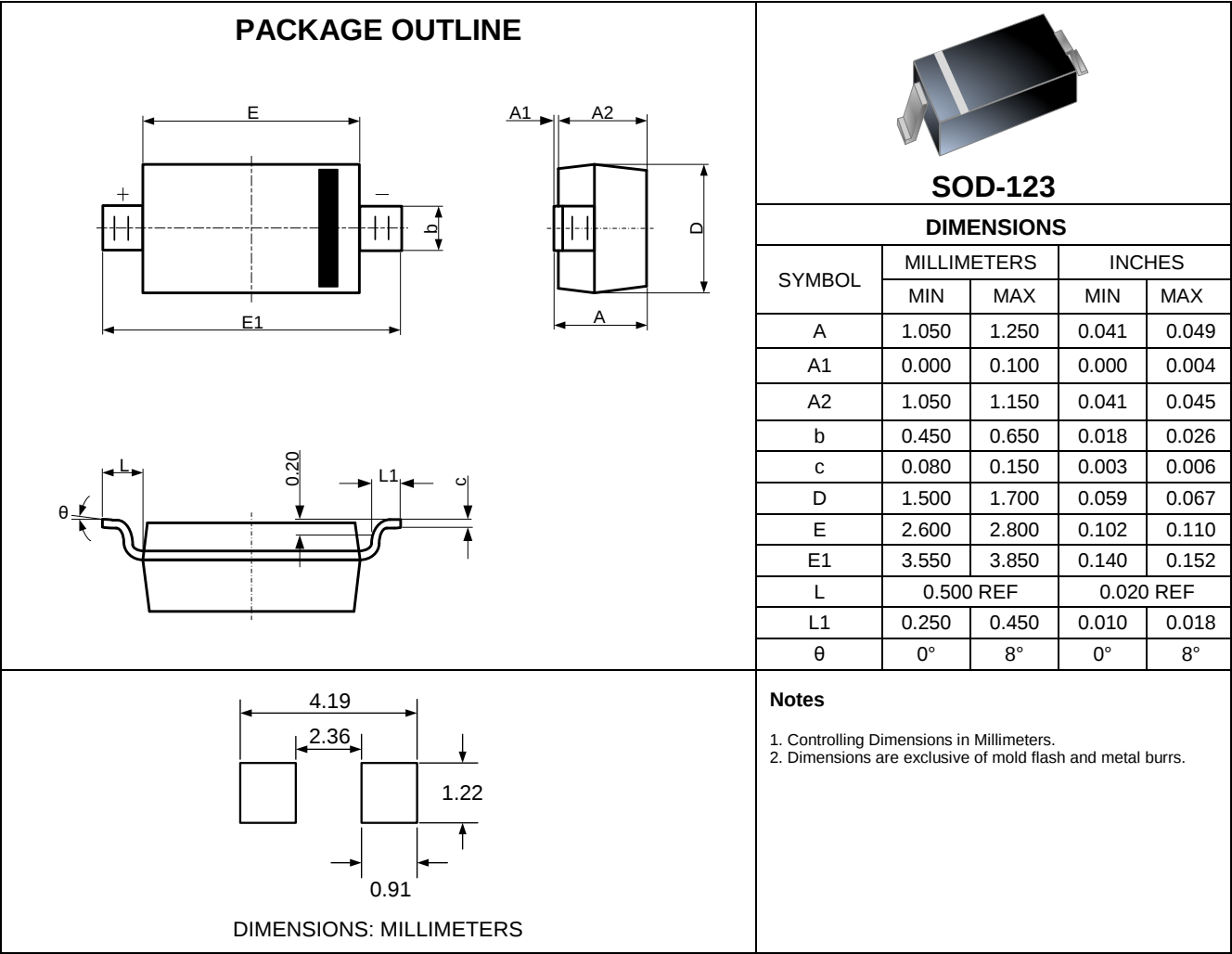


Quadrant Assignments For PIN1 Orientation In Tape



RD	Reel Dimensions	7 inch
W	Overall width of the carrier tape	8 mm
P1	Pitch between successive cavity centers	4 mm

Outline Drawing – SOD123



Marking Codes

Part Number	WSR4020D1A
Marking Code	

Package Information

Qty: 3k/Reel

CONTACT INFORMATION

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For additional information, please contact your local Sales Representative.

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Specifications are subject to change without notice.
The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.
Users should verify actual device performance in their specific applications.