



WSR4005D1

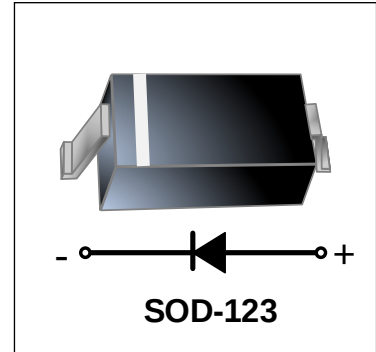
Schottky Barrier Diode

Features

- Low Forward Voltage Schottky Rectifier
- SOD123 Thin SMD Package

Applications

- High Efficiency DC/DC Conversion
- Switch Mode Power Supply
- Inverse Polarity Protection
- Low Power Consumption Applications



Absolute Maximum Rating

Parameter	Symbol	Value	Unit
Non-repetitive Peak Repetitive Voltage	V_{RM}	40	V
Repetitive Peak Reverse Voltage	V_{RRW}	40	V
RMS Reverse voltage	$V_{R(RMS)}$	28	V
Average Rectified Output Current	I_O	0.5	A
Non-Repetitive Peak Forward Surge Current ¹	I_{FSM}	5.5	A
Power Dissipation	P_D	410	mW
Junction Temperature	T_J	125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Note1: 8.3ms single half sine-wave.

Electrical Characteristics (Tamb=25°C unless otherwise noted)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V_{BR}	$I_R=100\mu A$	40	-	-	V
Forward Voltage	V_F	$I_F = 0.5A$	-	-	0.55	V
Reverse Current	I_R	$V_R = 40V$	-	-	200	μA
Capacitance	C_T	$V_R=4V, f=1MHz$	-	30	-	pF

Outline Drawing –SOD-123

PACKAGE OUTLINE

The image shows three technical drawings of an SOD-123 package. The top view shows a rectangular body with a central black rectangle, polarity markings (+ and -) on the leads, and dimensions E, E1, and b. The side view shows the package height D, lead width A, and lead thickness A1 and A2. The cross-sectional view shows the package profile with dimensions L, L1, c, and a 0.20mm depth, along with a lead angle θ.

A 3D perspective view of the SOD-123 package, showing its rectangular shape and leads.

SOD-123

DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

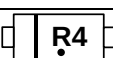
A dimensional drawing of the package footprint showing a central square with dimensions 4.19, 2.36, 1.22, and 0.91.

DIMENSIONS: MILLIMETERS

Notes

- 1. Controlling Dimensions in Millimeters.
- 2. Dimensions are exclusive of mold flash and metal burrs.

Marking Codes

Part Number	WSR4005D1
Marking Code	

Package Information

Qty: 3k/Reel

CONTACT INFORMATION

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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.