



SD103AW-E

Reverse Voltage -40 Volts Forward Current - 0.35 Ampere

1. Description

Schottky Diodes

2. Features

- Fast switching speed
- Guard ring construction for transient protection
- Negligible reverse recovery time
- Low reverse capacitance

3. Application

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

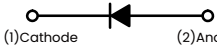
4. Mechanical Data

- Case : JEDEC SOD-123 molded plastic body
- Terminals : Plated leads solderable per MILSTD-750, Method 2026
- Polarity : Polarity symbols marked on case
- Weight : 0.0007 ounce, 0.02 grams
- Marking: S4

5. Absolute Maximum Ratings($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak repetitive peak reverse voltage	V_{RRM}	40	V
Working peak reverse voltage	V_{RWM}		
DC Blocking voltage	V_{DC}		
RMS Reverse voltage	$V_{R(RMS)}$	28	V
Forward continuous current	I_{FM}	350	mA
Repetitive peak forward current at $\leq 1.0\text{s}$	I_{FRM}	1.5	A
Power dissipation	P_D	400	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	300	$^{\circ}\text{C}/\text{W}$
Storage temperature	T_{stg}	-55~+150	$^{\circ}\text{C}$

6. Pinning information

Pin	Symbol	Description	Simplified outline	Equivalent Circuit	Marking	Package
1	-	Cathode			S4	SOD-123
2	+	Anode				

7. Characteristics(T_A=25°C unless otherwise noted)

Parameter	Symbols	Condition	Min	Typ	Max	Unit
Reverse breakdown voltage Reverse	V _{(BR)R}	I _R =100uA	40	—	—	V
Fowrard voltage	V _{F1}	I _F =20mA	—	—	0.4	v
	V _{F2}	I _F =200mA	—	—	0.61	v
Reverse current	I _{RM}	V _R =30V	—	—	10	uA
Capacitance between terminals	C _T	V _R =0V , f=1.0MHz	—	50	—	pF
Reverse recovery time	t _{rr}	I _F =I _R =200mA I _{rr} =0.1 ×I _R , R _L =100Ω	—	10	—	ns

8. Typical Characterisitics

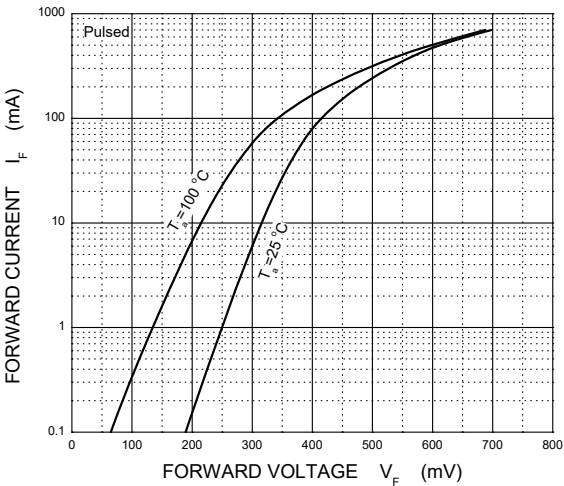


Figure 1. Forward Characteristics

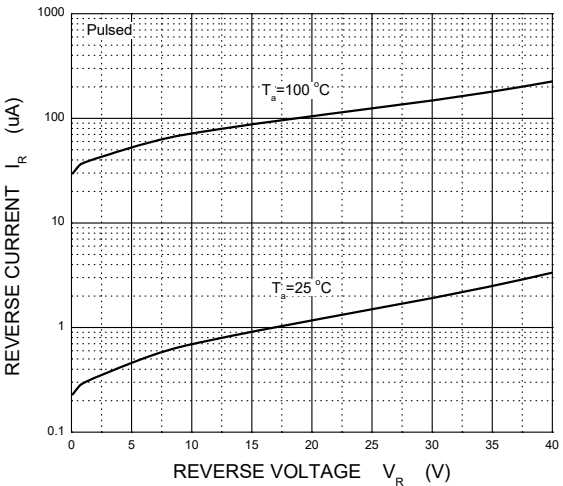


Figure 2. Reverse Characteristics

Reverse Voltage -40 Volts Forward Current - 0.35 Ampere

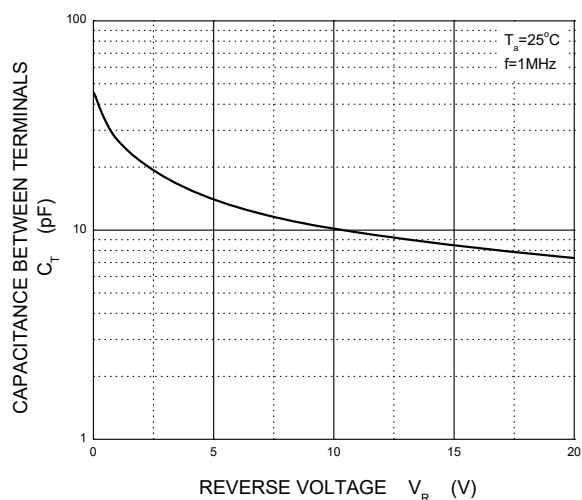


Figure 3. Capacitance Characteristics

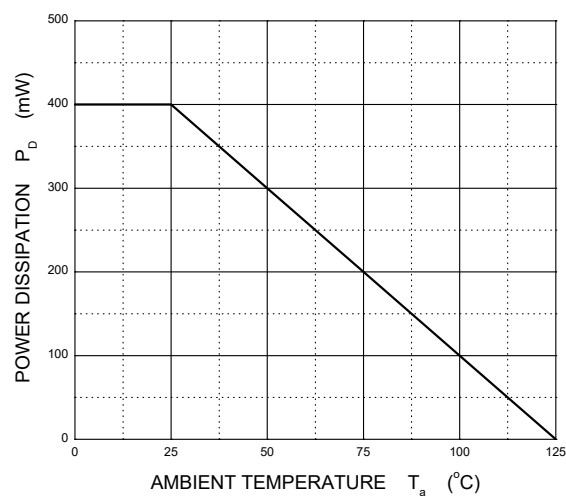
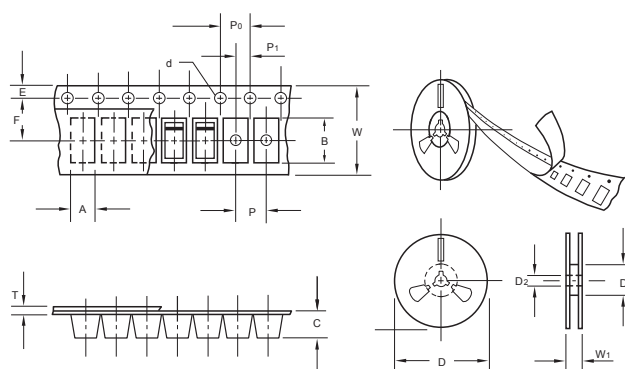


Figure 4. Power Derating Curve

The curve above is for reference only.

10. Packing information

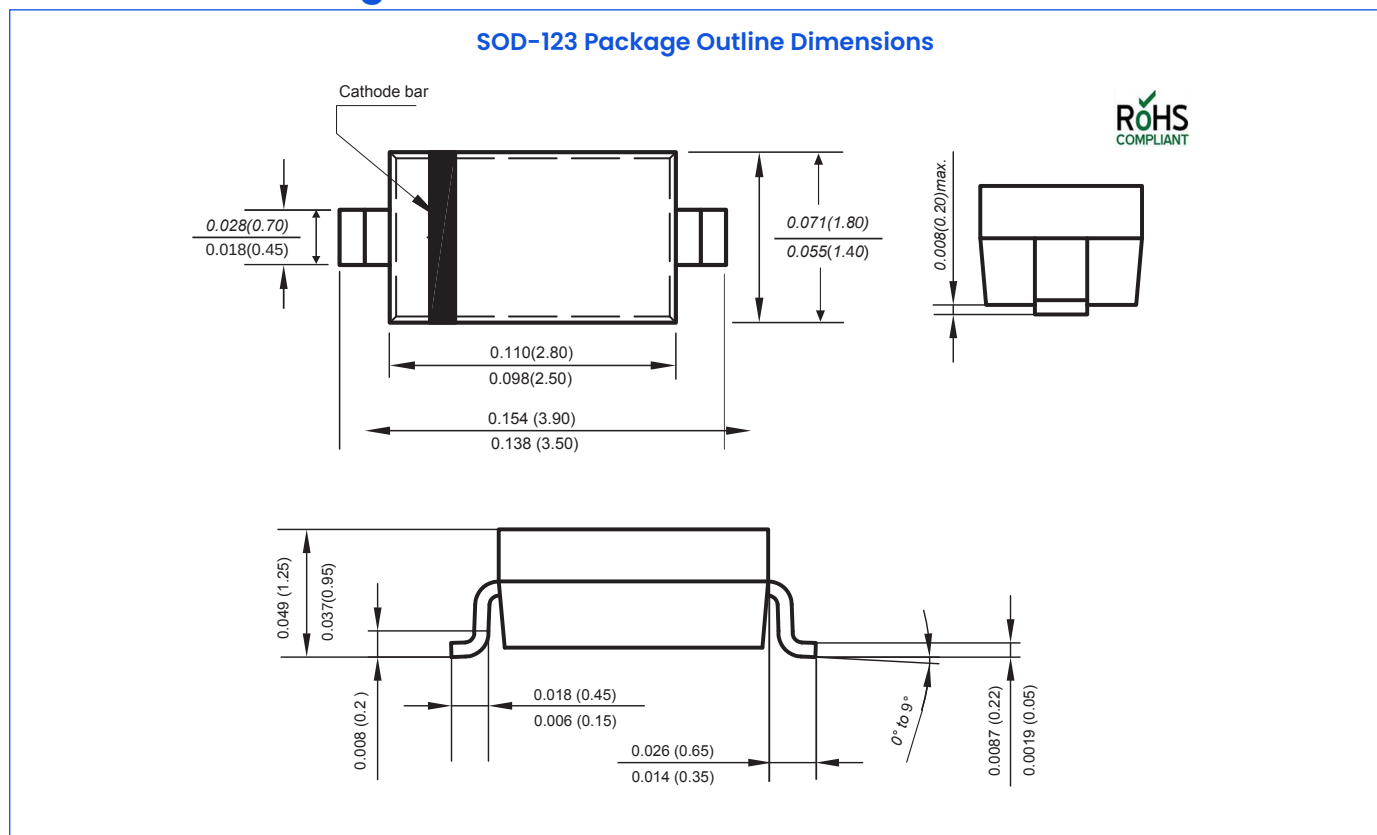


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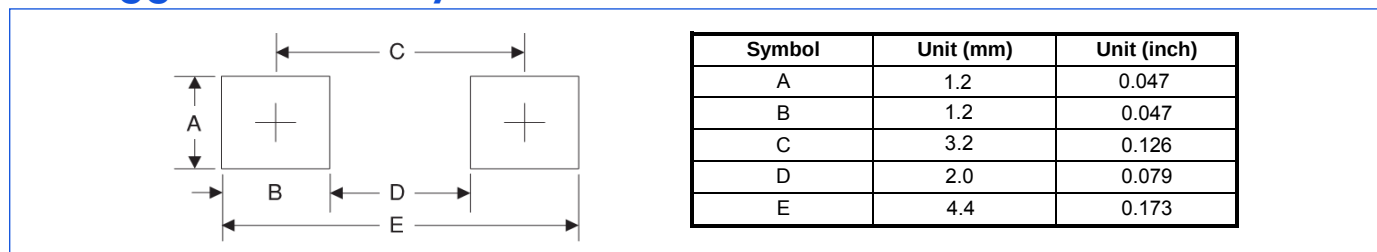
Item	Symbol	Tolerance	SOD-123
Carrier width	A	0.1	2.1
Carrier length	B	0.1	4.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D1	min	50.0
Feed hole diameter	D2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	3.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P0	0.1	4.00
Embossment center	P1	0.1	2.00
Overall tape thickness	T	0.1	0.25
Tape width	W	0.3	8.15
Reel width	W1	1.0	10.5

Note: Devices are packed in accordance with EIA standard RS-481-A and specifications listed above.

11. Outline Drawing



12. Suggested Pad Layout



13. Important Notice and Disclaimer

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