

FAST SWITHING DIODES

Features

- ◆ Fast switching speed
- ◆ Surface mount package ideally suited
- ◆ for automatic insertion
- ◆ For general purpose switching applications High
- ◆ conductance

Mechanical Data

Case*: JEDEC SOD-123 molded plastic body

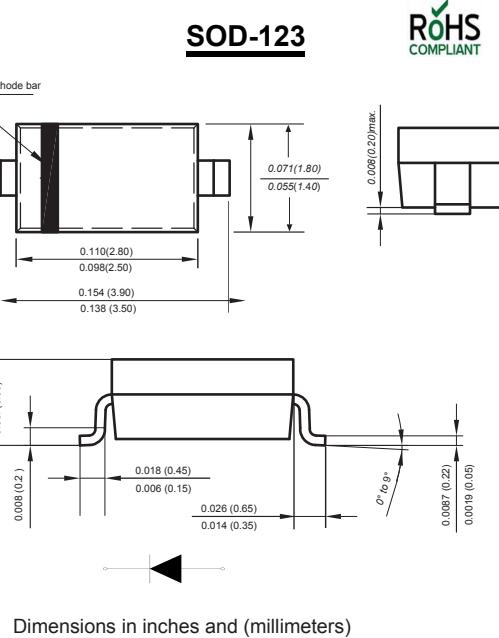
Terminals*: Plated leads solderable per MIL-STD-750, Method 2026

Polarity*: Polarity symbols marked on case

Weight : 0.00056ounce, 0.016grams

Marking: T4

Absolute Maximum Ratings at 25 °C



Dimensions in inches and (millimeters)

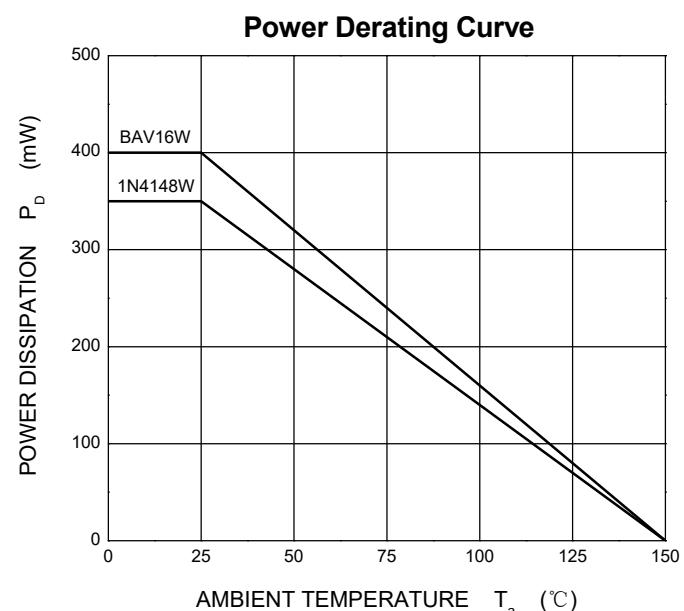
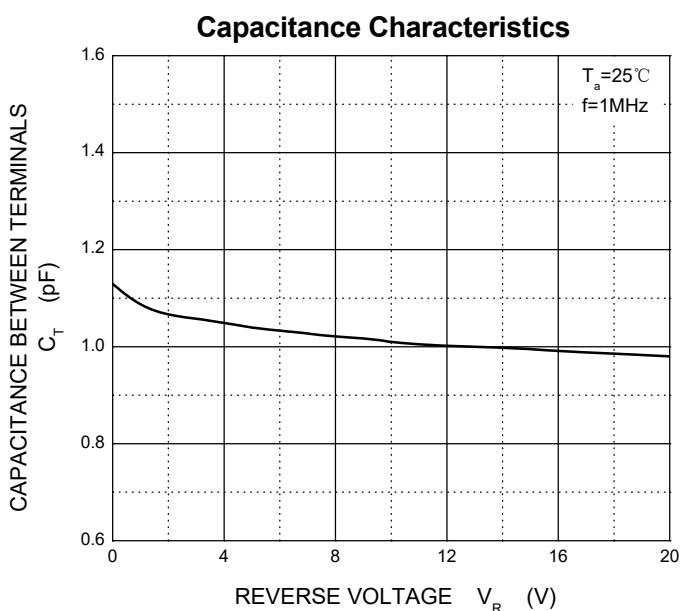
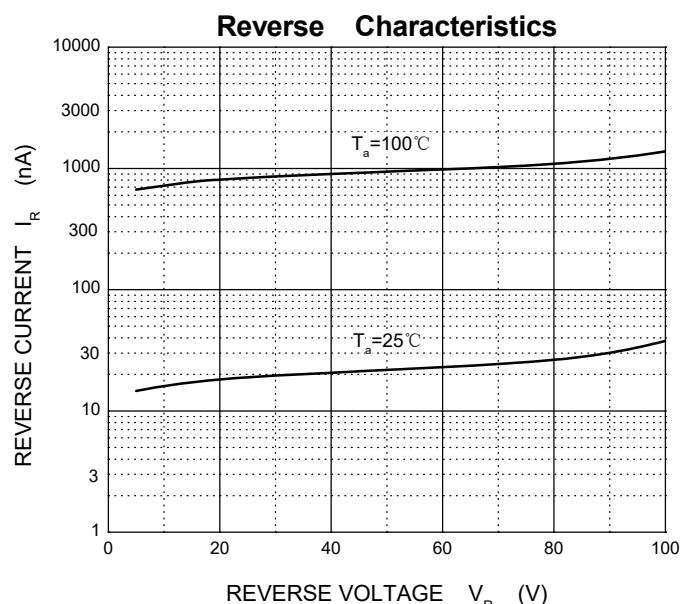
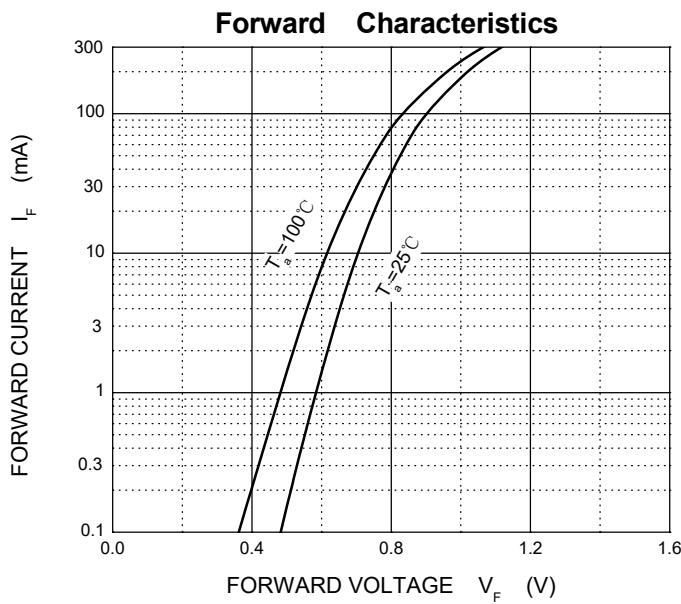
Parameter	Symbols	1N4148W	Units
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	100	V
Maximum RMS voltage	V _{RMS}	75	V
Average rectified output current	I _{F(AV)}	150	mA
Non-repetitive Peak Forward Surge Current at 1s at 1ms at 1us	I _{FSM}	0.5	
		1	A
		4	
Total Power Dissipation	P _{tot}	400	mW
Typical Thermal Resistance ⁽¹⁾	R _{θJA}	280	°C/W
Operating and Storage Temperature Range	T _j , T _{stg}	-55 ~ +150	°C

(1) P.C.B. mounted with 5 X 5 mm copper pad areas.

Characteristics at Ta= 25 °C

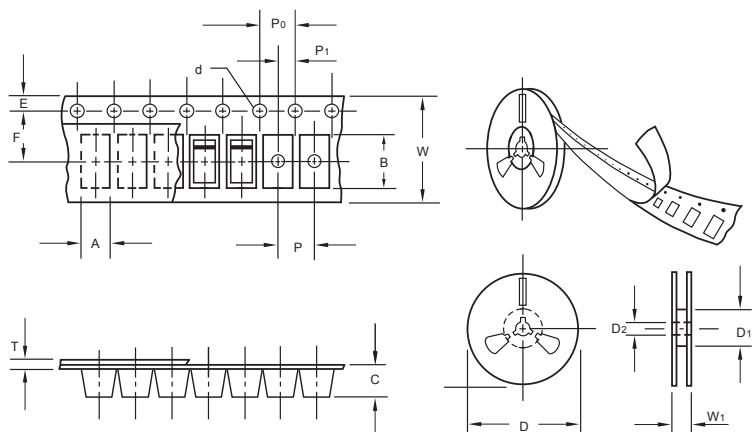
Parameter	Symbols	1N4148W	Units
Reverse Breakdown Voltage at I _R =1μA	V _{(BR)R}	75	V
Maximum Forward Voltage at 1m A at 10 m A at 50 m A at 150mA	V _F	0.715	
		0.855	
		1.00	
		1.25	
Peak Reverse Current at V _R =20V T _j =25°C at V _R =75V T _j =25 °C at V _R =25V T _j =150 °C at V _R =75V T _j =150 °C	I _R	0.025	
		1	
		30	
		50	
Typical Junction Capacitance	C _j	2	pF
Maximum Reverse Recovery Time	t _{rr}	4	ns

Typical Characteristics



The curve above is for reference only.

Packing information



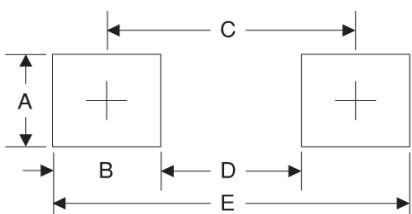
unit:mm			
Item	Symbol	Tolerance	SOD-123
Carrier width	A	0.1	2.1
Carrier length	B	0.1	4.0
Carrier depth	C	0.1	1.60
Sprocket hole	d	0.05	1.55
7" Reel outside diameter	D	2.0	178.00
7" Reel inner diameter	D1	min	50.0
Feed hole diameter	D2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	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.

Reel packing

PACKAGE	REEL SIZE	REEL (pcs)	COMPONENT SPACING (m/m)	BOX (pcs)	INNER BOX (m/m)	REEL DIA, (m/m)	CARTON SIZE (m/m)	CARTON (pcs)	APPROX. GROSS WEIGHT (kg)
SOD-123	7"	3,000	4.0	45,000	210*208*203	178	430*430*235	180,000	9.0

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.2	0.047
B	1.2	0.047
C	3.2	0.126
D	2.0	0.079
E	4.4	0.173