BORN SEMICONDUCTOR

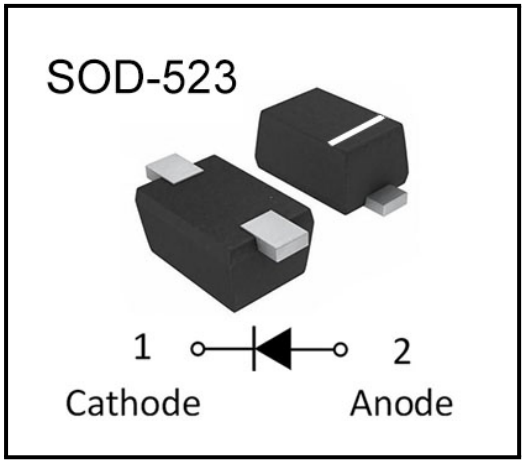
1N4148WT

Fast Switching Diode

Features

- Fast Switching Device (T_{RR} <4.0 nS)
- Power Dissipation of 150mW
- High Stability and High Reliability
- Low reverse leakage

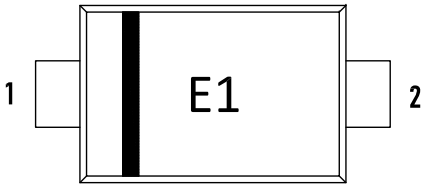
Package



Description

- SOD-523 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

Marking



Ordering information

Order code	Package	Marking	Base qty	Delivery mode
1N4148WT	SOD-523	E1	5K	Tape and reel

Maximum Ratings @T_A=25°C unless otherwise noted

Symbol	Parameter	Value	Unit
V_R	Reverse Voltage	75	V
V_{RM}	Peak Reverse Voltage	100	V
I_O	Average Rectified Current	150	mA
I_{FM}	Peak Forward Current	300	mA
I_{FSM}	Peak Forward Surge Current @t_p=1us; T_A=25°C	2.0	A
P_d	Power Dissipation	150	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	250	°C/W
T_J	Operating junction temperature	150	°C
T_S	Storage temperature range	-55 to +150	°C

BORN SEMICONDUCTOR , INC. ALL RIGHT RESERVED

Specifications are subject to change without notice.
Please refer to http://*www.born-tw.com* for current information.

Revision: 2022-Jan-1-A

1N4148WT

Fast Switching Diode

Electrical Characteristics @T_A=25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Limits		Unit
			Min.	Max.	
B_V	Breakdown Voltage	I_R=100uA	100	–	V
		I_R=5uA	75	–	
I_R	Reverse Leakage Current	V_R=20V	–	25	nA
		V_R=75V	–	5	uA
V_F	Forward Voltage	I_F=5mA	0.62	0.72	V
		I_F=10mA	–	0.85	
		I_F=150mA	–	1.25	
T_{RR}	Reverse Recovery Time	I_F =I_R=10mA	–	4	nS
		R_L = 100Ω			
		I_{RR} = 0.1xI_R			
C_T	Capacitance	V_R = 0V, f=1MHZ	–	4	pF

BORN SEMICONDUCTOR , INC. ALL RIGHT RESERVED

Specifications are subject to change without notice.
Please refer to http://*www.born-tw.com* for current information.

1N4148WT

Fast Switching Diode

Typical Performance Characteristics(T_J = 25 °C, unless otherwise noted)

Figure 1: Total Capacitance

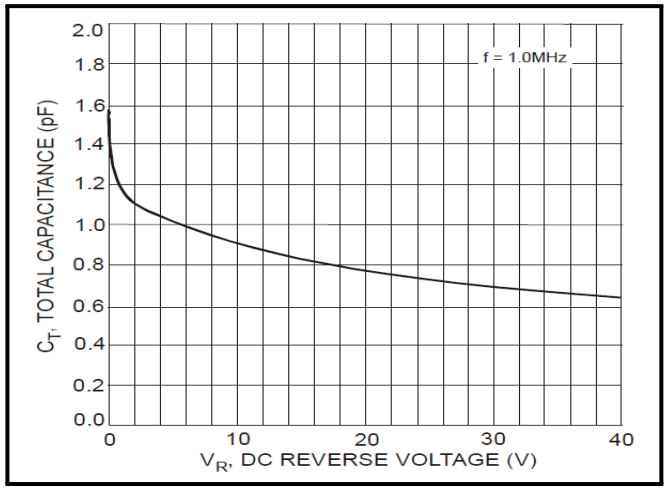


Figure 2: Forward Voltage vs Ambient temperature

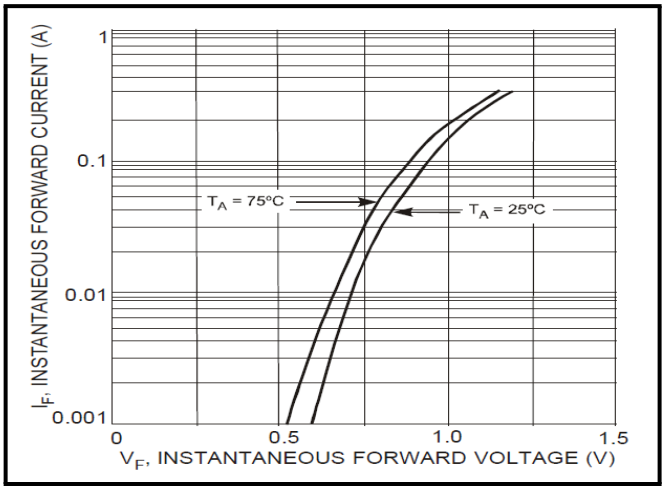


Figure 3: Power Derating Curve

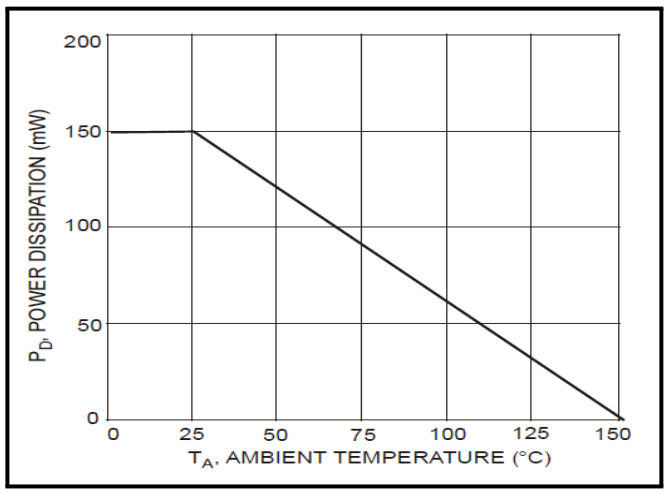
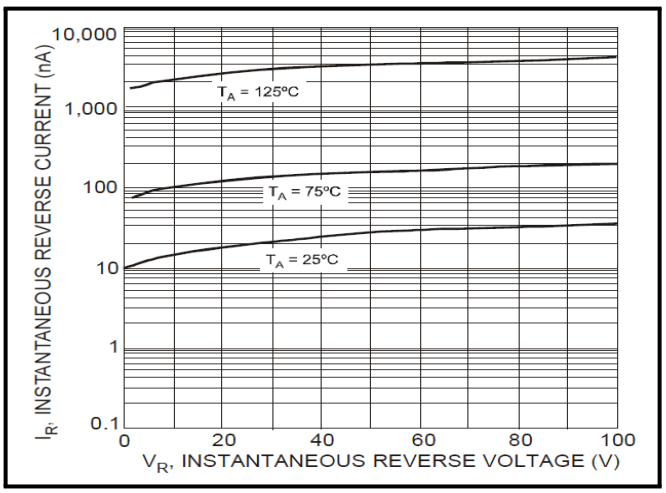


Figure 4: Reverse Current vs Reverse Voltage Reverse



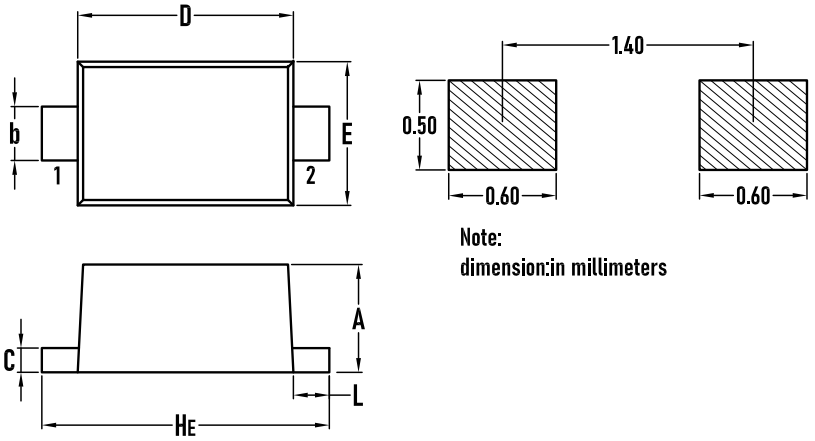
BORN SEMICONDUCTOR , INC. ALL RIGHT RESERVED

Specifications are subject to change without notice.
Please refer to http://*www.born-tw.com* for current information.

1N4148WT

Fast Switching Diode

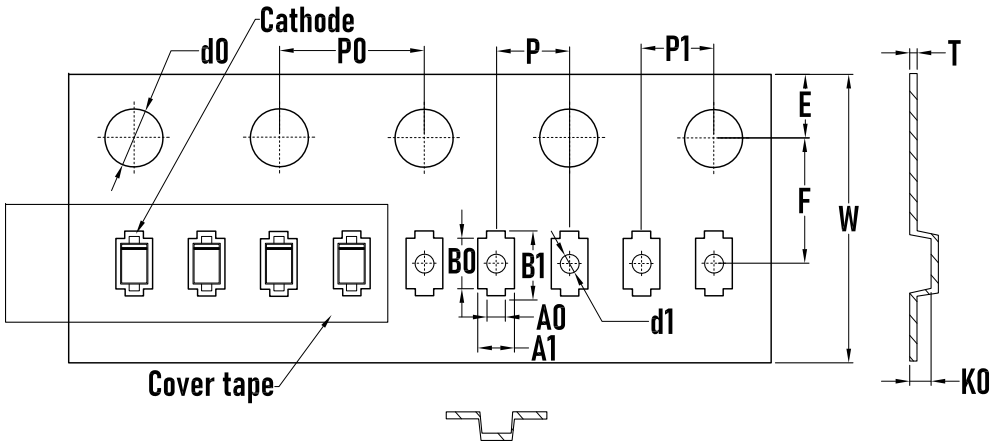
Outline Drawing - SOD-523



Note:
dimension:in millimeters

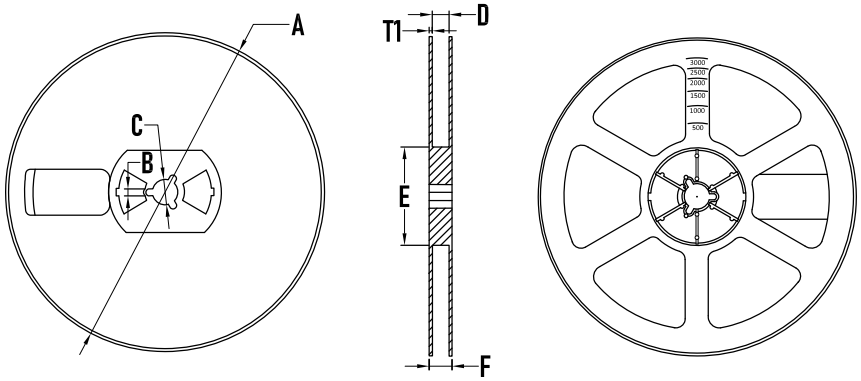
SYMBOL	MILLIMETER		INCHES	
	MIN.	MAX.	MIN.	MAX.
A	0.50	0.70	0.020	0.028
b	0.25	0.35	0.010	0.014
C	0.07	0.20	0.0028	0.0079
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
H_E	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010

Packaging Tape - SOD-523



SYMBOL	MILLIMETER
A0	0.50±0.10
A1	1.00±0.10
B0	1.30±0.10
B1	1.80±0.10
d0	1.55±0.10
d1	0.50±0.05
E	1.75±0.10
F	3.50±0.10
K0	0.65±0.10
P	2.00±0.10
P0	4.00±0.10
P1	2.00±0.10
W	8.00±0.30
T	0.2 ±0.05

Packaging Reel



SYMBOL	MILLIMETER
A	177.8±0.2
B	2.7±0.2
C	13.5±0.2
D	9.6±0.3
E	54.5±0.2
F	12.3±0.3
T1	1.0±0.2
Quantity	5000PCS

BORN SEMICONDUCTOR , INC. ALL RIGHT RESERVED

Specifications are subject to change without notice.
Please refer to http://*www.born-tw.com* for current information.

Revision: 2022-Jan-1-A