

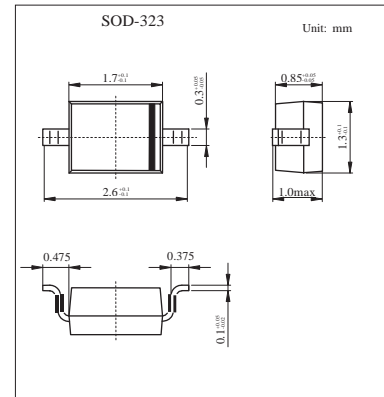


Surface Mount Fast Switching Diodes

1N4148WS

■ Features

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Non-repetitive peak reverse voltage	V_{RM}	100	V
Peak repetitive reverse voltage	V_{RRM}	75	V
Working peak reverse voltage	V_{RWM}		
DC blocking voltage	V_R	53	V
RMS reverse voltage	$V_{R(RMS)}$		
Average rectified output current	I_O	150	mA
Forward continuous current	I_{FM}	300	mA
Non-repetitive peak forward surge current @ t = 1.0s	I_{FSM}	1.0	A
@ t = 1.0 us		3.0	
Power dissipation *	P_D	350	mW
Typical thermal resistance, junction to ambient air*	$R_{\theta JA}$	650	°C/W
Operating and storage temperature range	T_j, T_{stg}	-65 to +150	°C

* Part mounted on FR-4 PC board with recommended pad layout,

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R = 1.0 \mu A$	75			V
Forward voltage	V_{FM}	$I_F = 10mA$			0.715	V
		$I_F = 10mA$			0.855	
		$I_F = 50mA$			1.0	
		$I_F = 150mA$			1.25	
Peak reverse current	I_{RM}	$V_R = 75V$			1.0	μA
		$V_R = 75V, T_j = 150^\circ C$			50	
		$V_R = 25V, T_j = 150^\circ C$			30	
		$V_R = 20V$			25	nA
Capacitance	C_T	$V_R = 0, f = 1.0MHz$			2.0	pF
Reverse recovery time	t_{rr}	$I_F = I_R = 10mA, I_{rr} = 0.1 \times I_R, R_L = 100 \Omega$			4.0	ns

■ Marking

Marking	T4
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■ Typical Characteristics

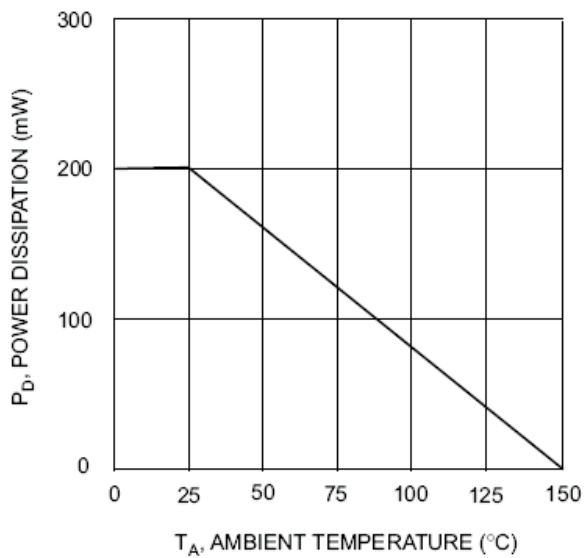


Fig.1 Power Derating Curve

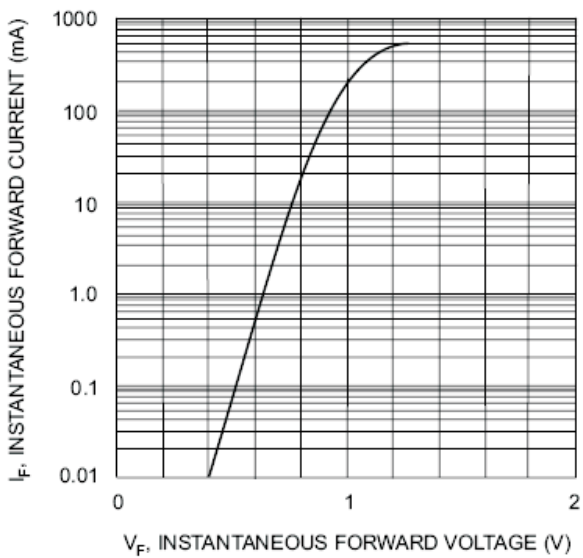


Fig.2 Forward Characteristics

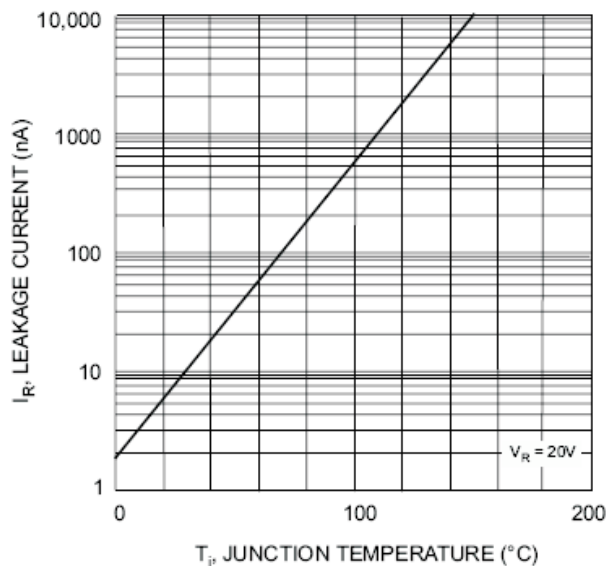
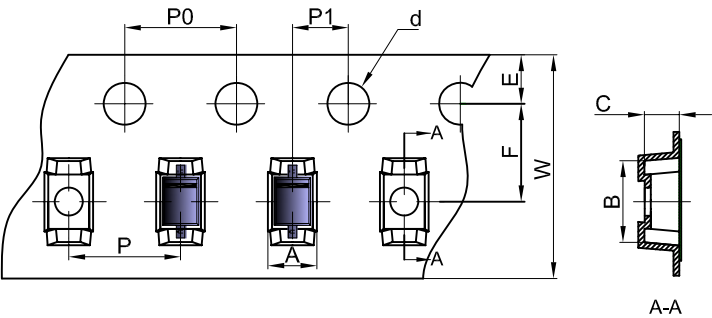


Fig. 3 Leakage Current vs Junction Temperature

SOD-323 Tape and reel

SOD-323 Embossed Carrier Tape

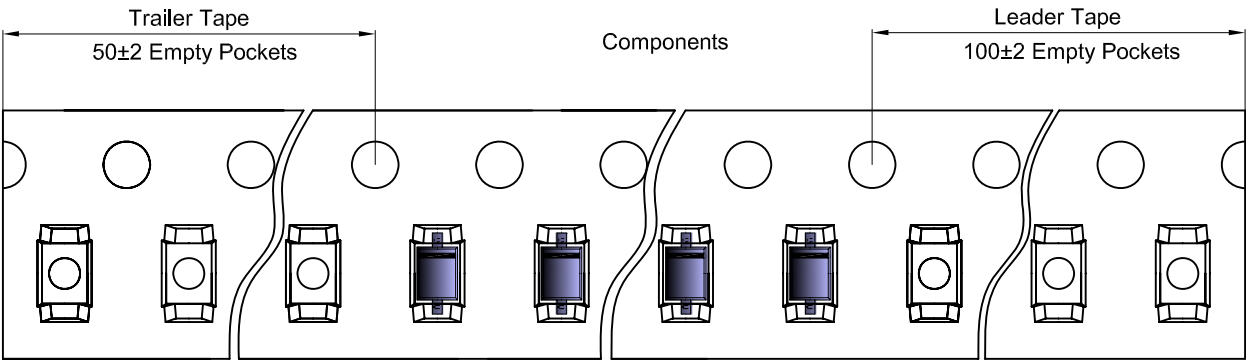


Packaging Description:

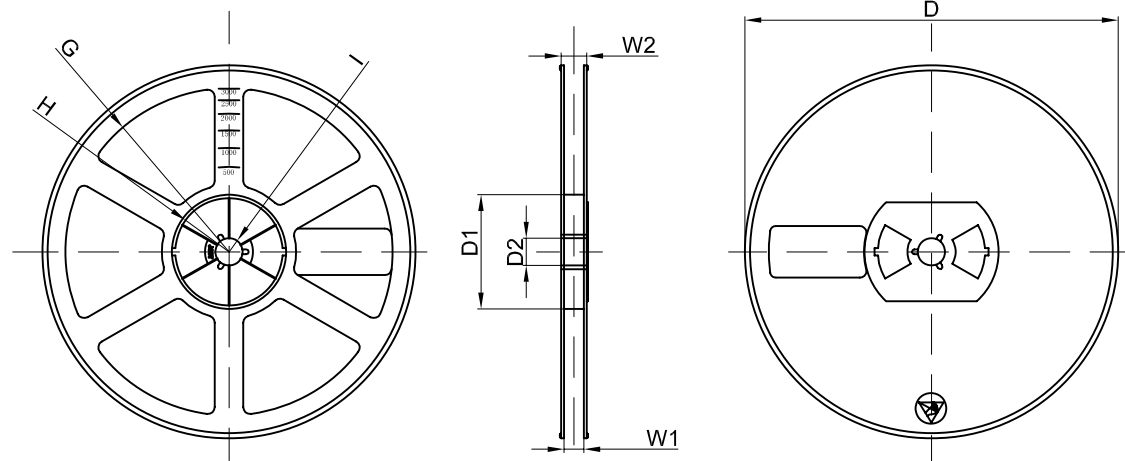
SOD-323 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-323	1.46	2.90	1.25	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00
(Tolerance)	+/-0.05	+/-0.05	+/-0.05	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+/-0.1	+0.3/-0.1

SOD-323 Tape Leader and Trailer



SOD-323 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30
Tolerance	+/-2	+/-1	+/-1	+/-1	+/-1	+/-1	+/-1	+/-1

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	210×208×203	180,000 pcs	440×440×230	7.75