

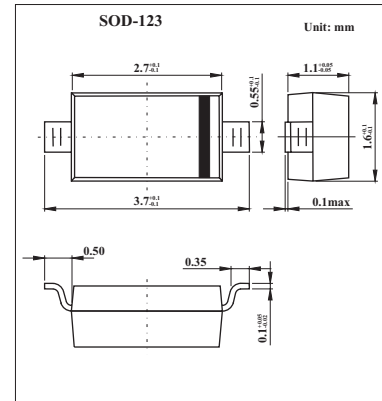


Surface Mount Fast Switching Diodes

1N4148W

■ Features

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- 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}		
Working peak reverse voltage	V _{RWM}	75	V
DC blocking voltage	V _R		
RMS reverse voltage	V _{R(RMS)}	53	V
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	400	mW
Typical thermal resistance, junction to ambient air	R _{θJA}	315	°C/W
Junction temperature	T _j	150	°C
Storage temperature	T _{STG}	-65 to 150	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Forward voltage	V _{F1}	I _F = 1mA			0.715	V
	V _{F2}	I _F = 10mA			0.855	
	V _{F3}	I _F = 50mA			1.0	
	V _{F4}	I _F = 150mA			1.25	
Peak reverse current	I _{R1}	V _R = 75V			1	μ A
	I _{R2}	V _R = 20V			25	μ A
Capacitance	C _J	V _R = 0, f = 1.0MHz			2	pF
Reverse recovery time	t _r	I _F =I _R =10mA, I _{rr} =0.1I _R , R _L =100Ω			4	ns

■ Marking

Marking	T4
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■ Typical Characteristics

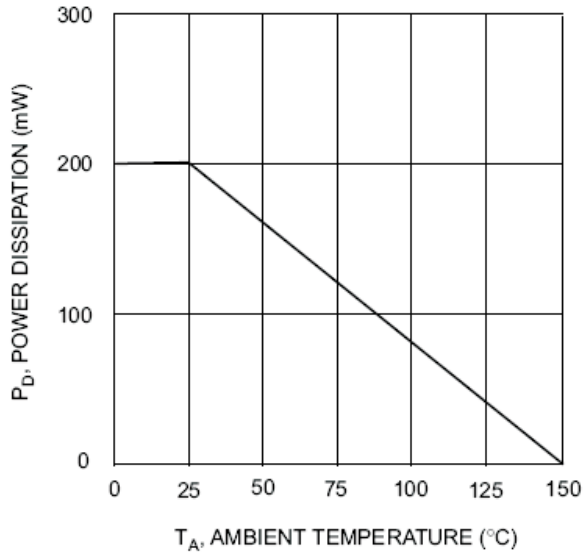


Fig.1 Power Derating Curve

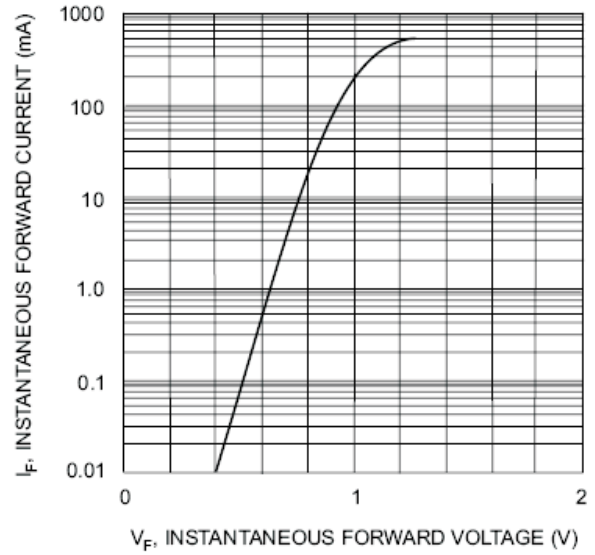


Fig.2 Forward Characteristics

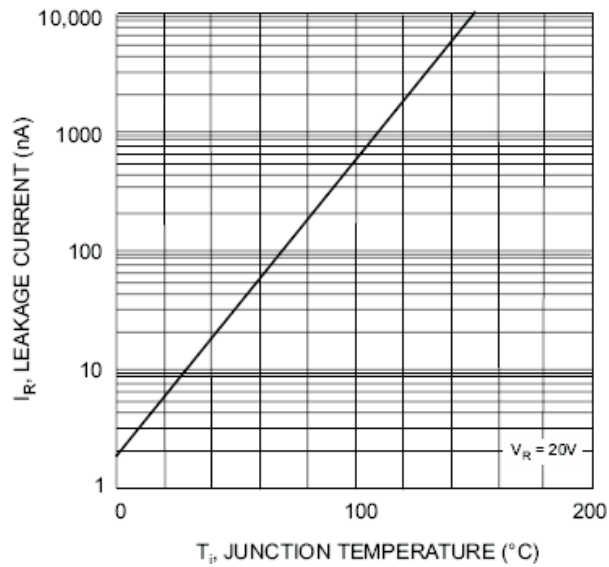
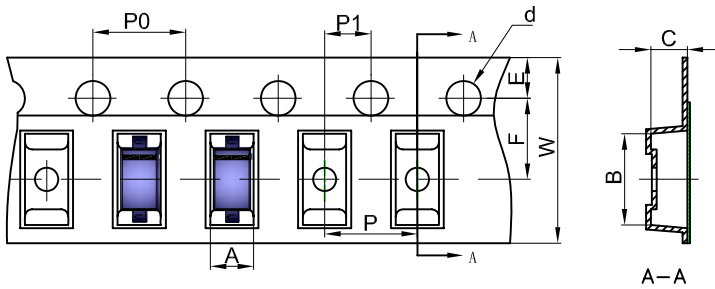


Fig. 3 Leakage Current vs Junction Temperature

SOD-123 Tape and reel

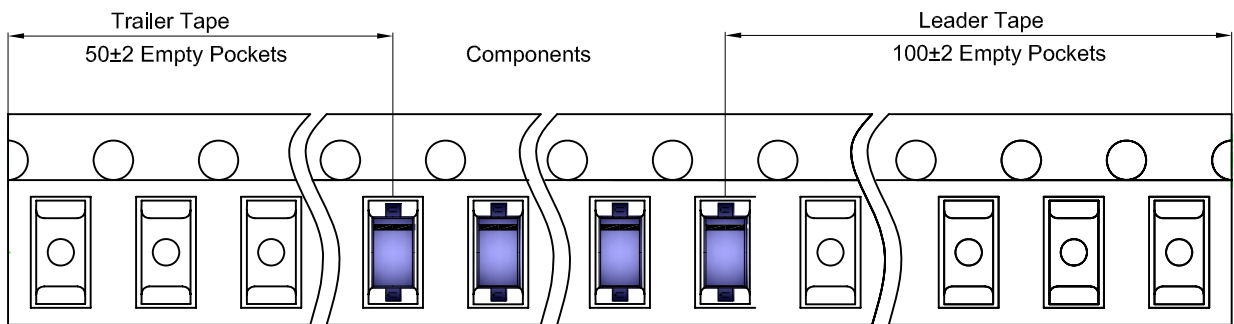
SOD-123 Embossed Carrier Tape



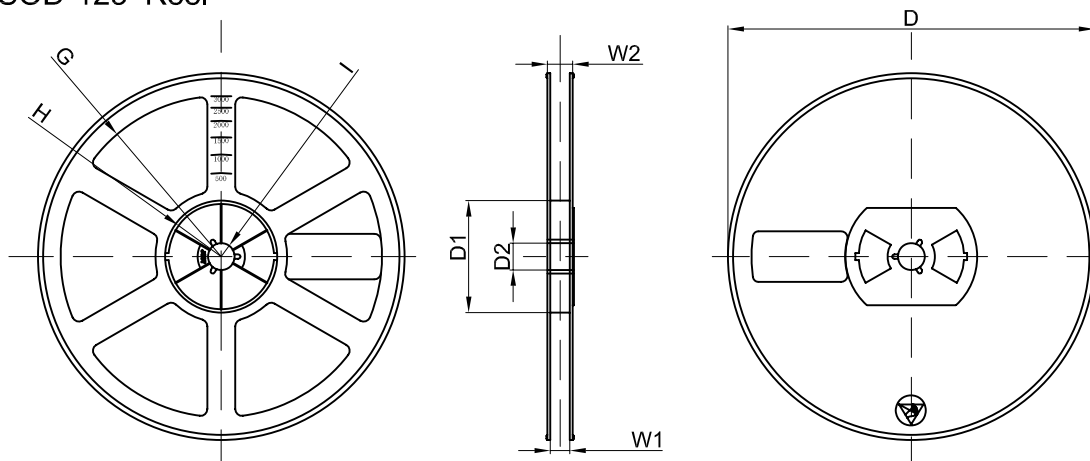
Packaging Description:
 SOD-123 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. 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-123	1.85	3.94	1.57	Ø1.55	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-123 Tape Leader and Trailer



SOD-123 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	8.85