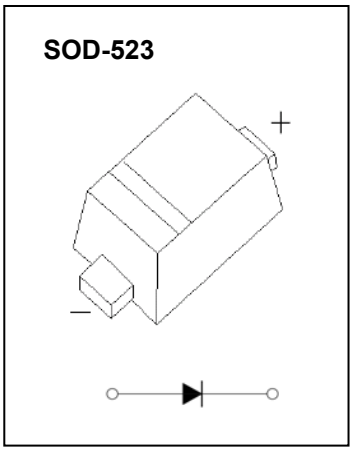
SZCJ

Shenzhen Changji Semiconductor Co., LTD.

SOD-523 Plastic-Encapsulate Diodes

1N4448WT FAST SWITCHING DIODE



FEATURES

- Small Package
- Low Reverse Current
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion

MARKING: T5



The marking bar indicates the cathode

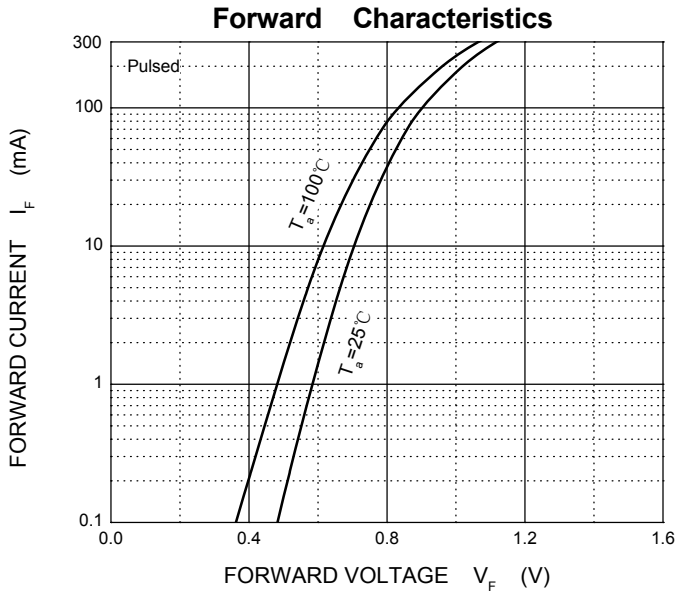
Maximum Ratings and Electrical Characteristics, Single Diode @Ta=25℃

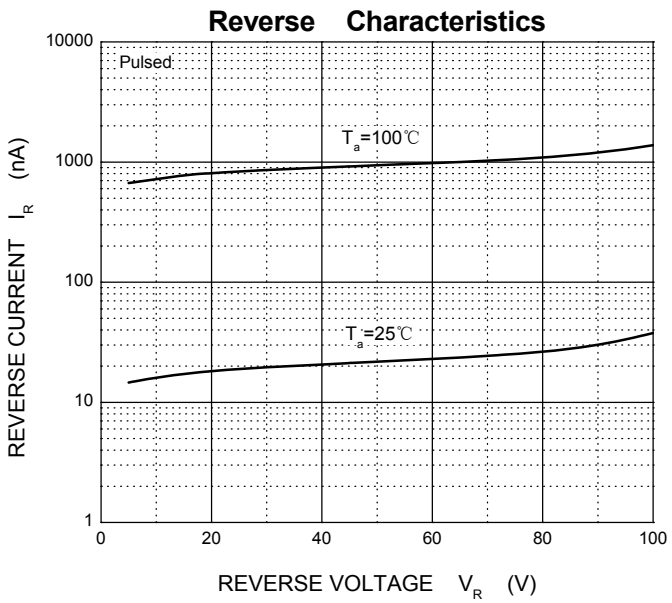
Parameter	Symbol	Limit	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Peak Reverse Voltage **Working Peak Reverse Voltage** **DC Blocking Voltage**	V_{RRM} V_{RWM} V_R	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current	I_{FM}	500	mA
Average Rectified Output Current	I_O	250	mA
Non-Repetitive Peak Forward Surge Current @t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	Pd	150	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	833	℃/W
Operation Junction and Storage Temperature Range	T_J,T_{STG}	-55~+150	℃

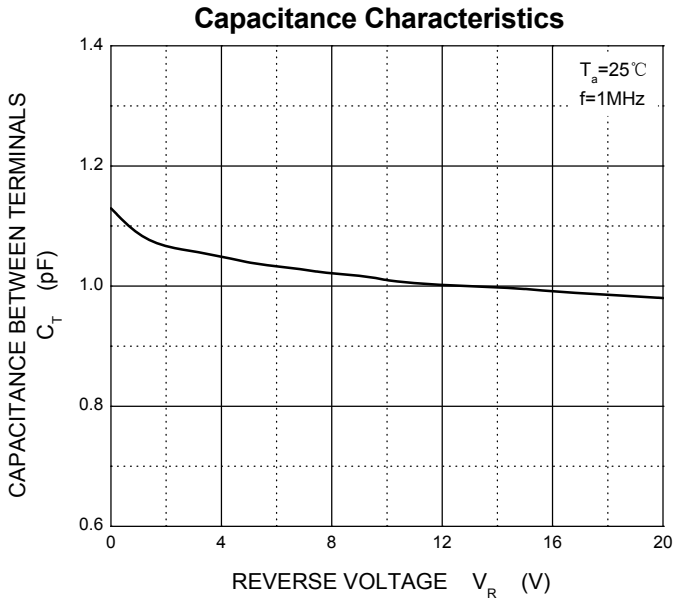
ELECTRICAL CHARACTERISTICS(T_a=25℃ unless otherwise specified)

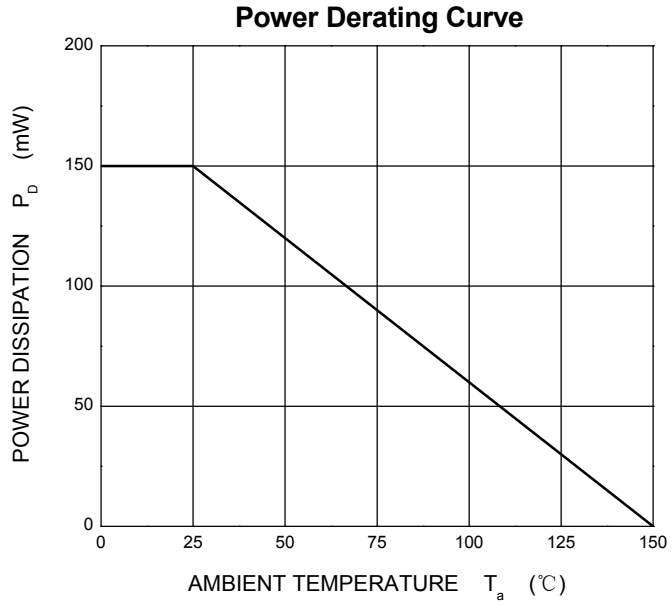
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)1}$	I_R=5μA	75			V
Reverse voltage	$V_{(BR)2}$	I_R=100μA	100			V
Reverse current	I_R	V_R=75V			1	μA
		V_R=20V			25	nA
Forward voltage	V_F	I_F=5mA			0.715	V
		I_F=10mA			0.855	V
		I_F=100mA			1	V
		I_F=150mA			1.25	V
Total capacitance	C_{tot}	V_R=0V,f=1MHz			4	pF
Reverse recovery time	t_{rr}	I_F= I_R =10mA, I_{rr}=0.1*I_R,R_L=100Ω			4	ns

Typical Characteristics

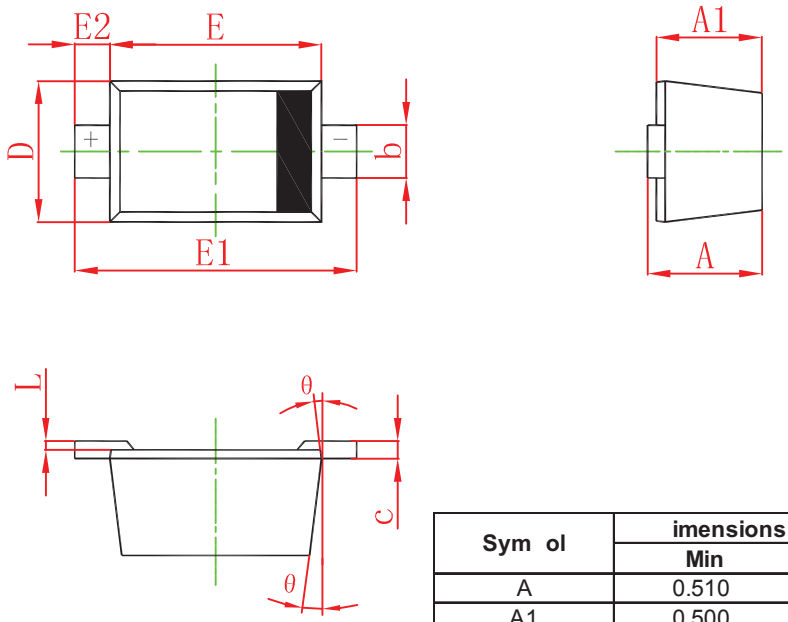






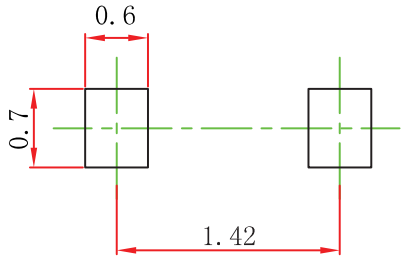


SOD-523 Package Outline Dimensions



Sym ol	imensions In Millimeters		imensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

SOD-523 Suggested Pad Layout



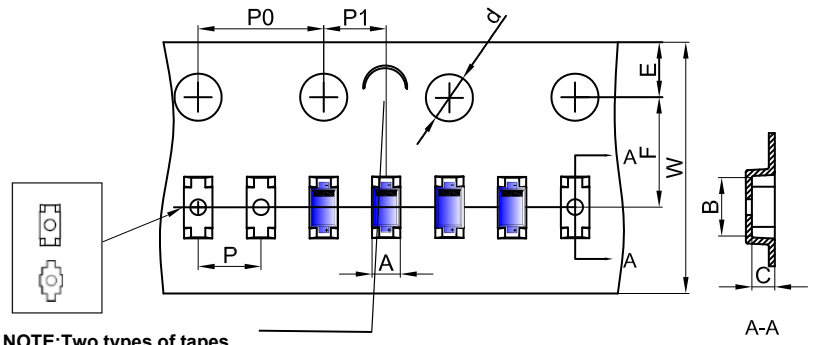
Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

NOTICE

SZCJ reserves the right to make modifications,enhan nts,improvements,corrections or other es without further notice to any product herein. SZCJ does not assume any liability arising out of the application or use of any product described h

SOD-523 Tape and Reel

SOD-523 Embossed Carrier Tape



NOTE:Two types of tapes coexist side by side.

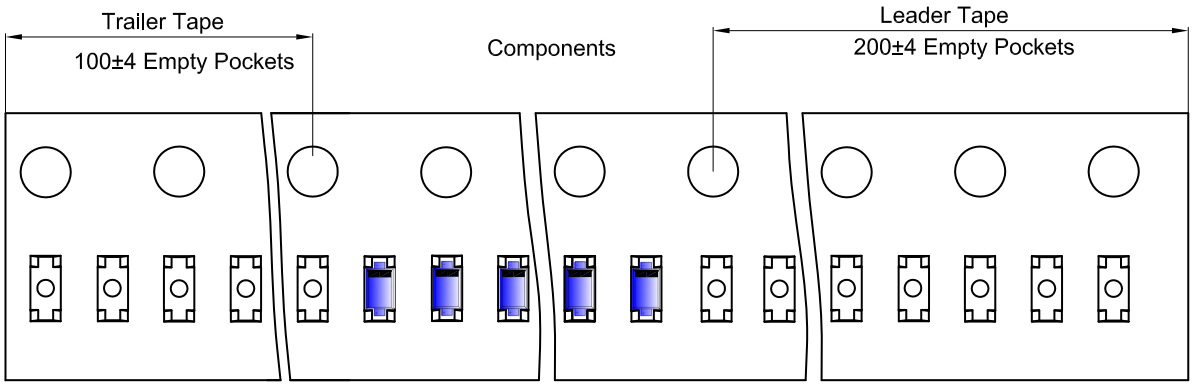
NOTE:TO CAVE 'C' ON CARRIER TAPE PER 120MM

Packaging Description:

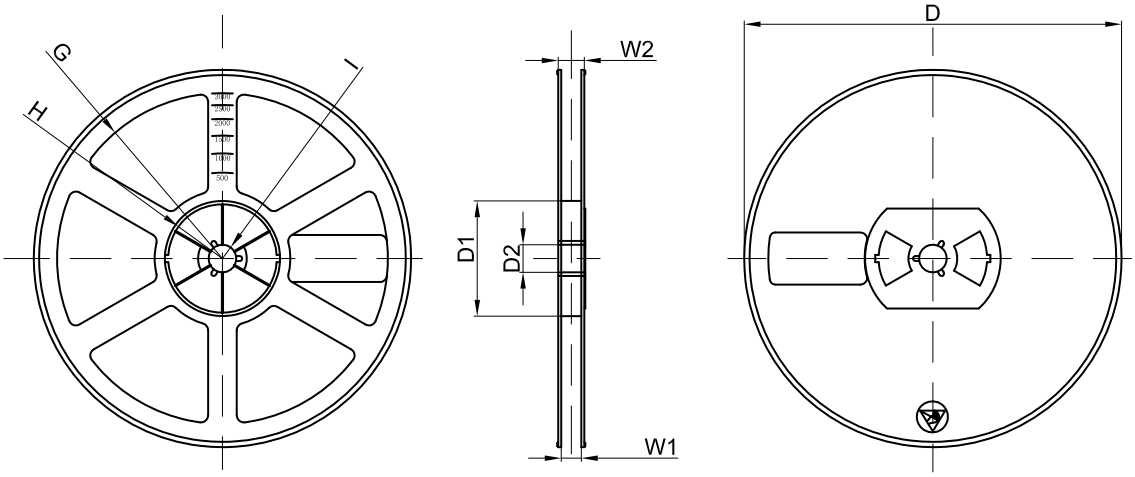
SOD-523 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 8,000 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-523	0.9	1.94	0.73	Ø1.50	1.75	3.50	4.00	2.00	2.00	8.00

SOD-523 Tape Leader and Trailer



SOD-523 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

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
8000 pcs	7 inch	120,000 pcs	203×203×195	480,000 pcs	438×438×220	