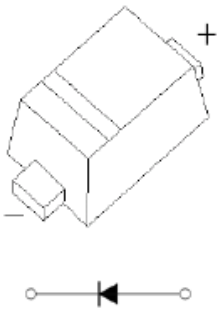
SZCJ

Shenzhen Changji Semiconductor Co., LTD.

SOD-523 Plastic-Encapsulate Diodes

BAT43X SCHOTTKY BARRIER DIODE

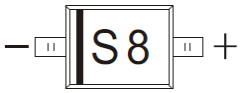
SOD-523



FEATURES

- Low Forward Voltage Drop
- Fast Switching Time
- Surface Mount Package Ideally Suited For Automatic Insertion

MARKING: S8



S8=Device code

The marking bar indicates the cathode

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

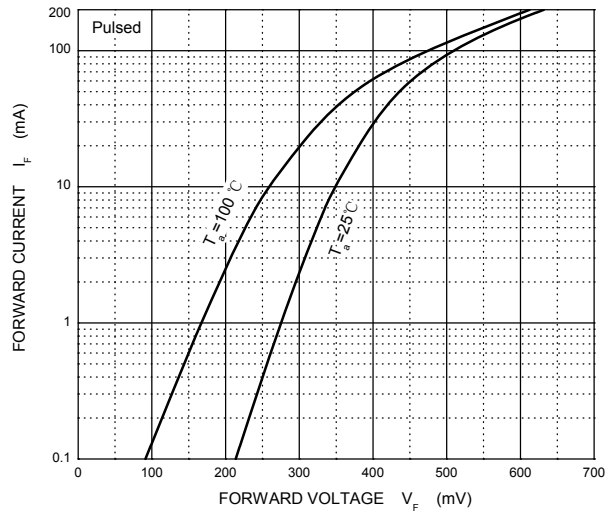
Symbol	Parameter	Limit	Unit
V_{RRM}	Repetitive Peak Reverse Voltage	30	V
V_{RWM}	Working Peak Reverse Voltage		
V_R	DC Blocking Voltage		
$V_{R(RMS)}$	RMS Reverse Voltage	21	V
I_{FM}	Forward Continuous Current	200	mA
I_{FRM}	Repetitive Peak Forward Current @t<1.0s	500	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current @t=8.3ms	4	A
P_d	Power Dissipation	150	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	667	℃/W
T_J	Operating Junction Temperature Range	-40 ~ +125	℃
T_{stg}	Storage Temperature Range	-55 ~ +150	℃

ELECTRICAL CHARACTERISTICS (T_a = 25℃ unless otherwise specified)

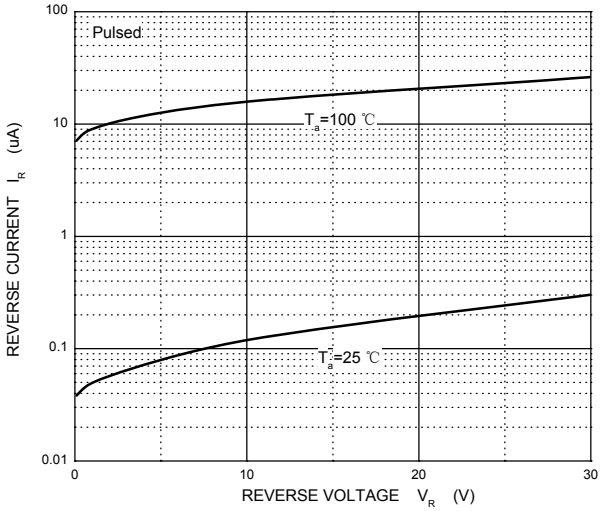
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I_R=10μA	30			V
Reverse current	I_R	V_R=25V			0.5	μA
Forward voltage	V_F	I_F=2mA	0.26		0.33	V
		I_F=15mA			0.45	V
		I_F=200mA			1	V
Capacitance between terminals	C_T	V_R=1.0V,f=1.0MHz			10	pF
Reverse recovery time	t_{rr}	I_F=I_R=10mA I_{rr}=0.1XI_R,R_L=100Ω			5	ns

Typical Characteristics

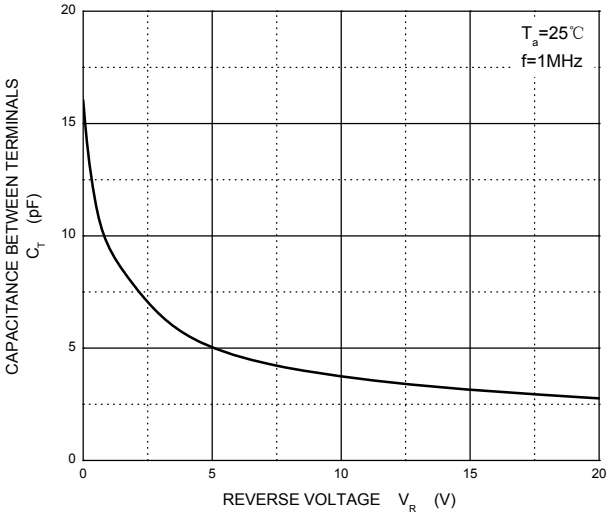
Forward Characteristics



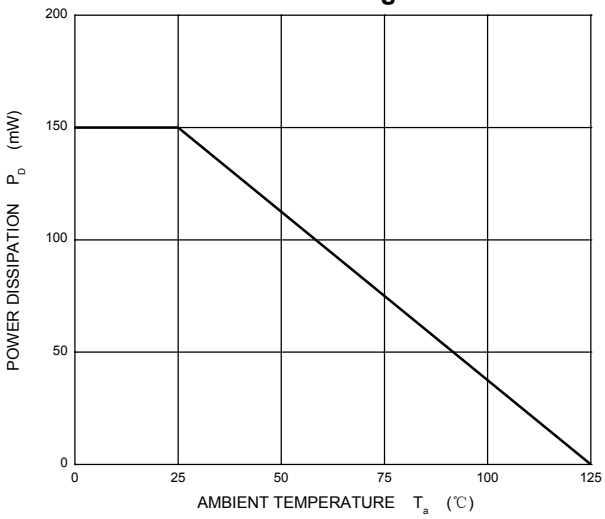
Reverse Characteristics



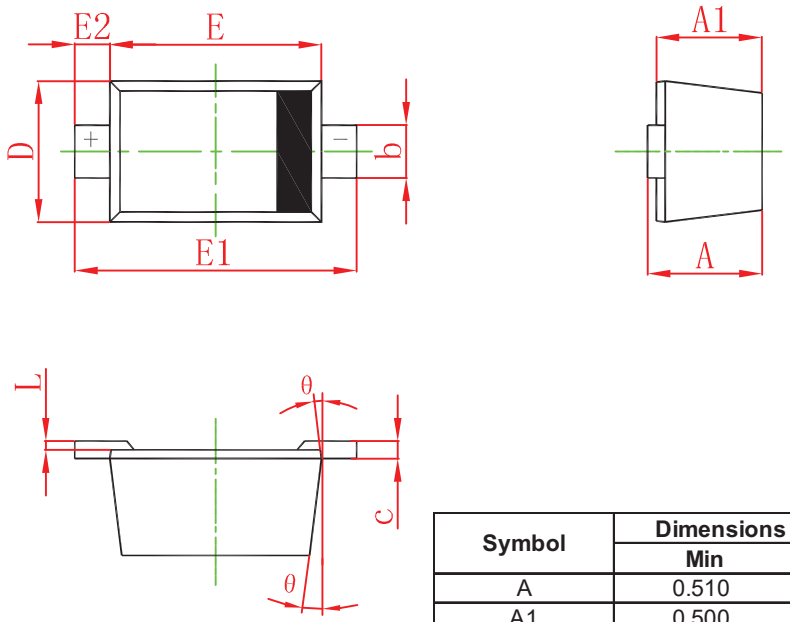
Capacitance Characteristics



Power Derating Curve

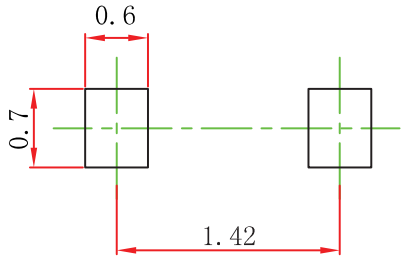


SOD-523 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions 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



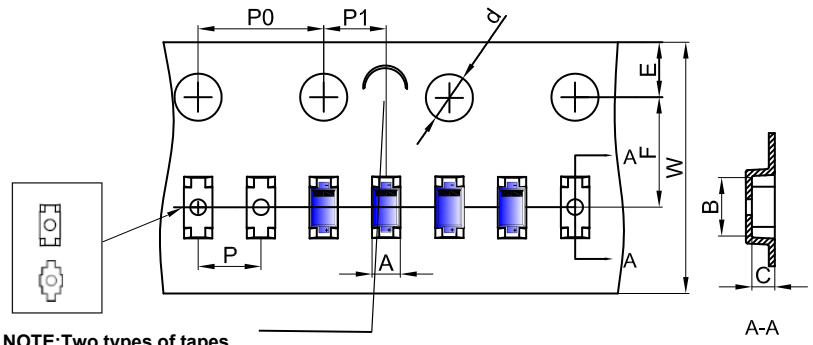
Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

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.

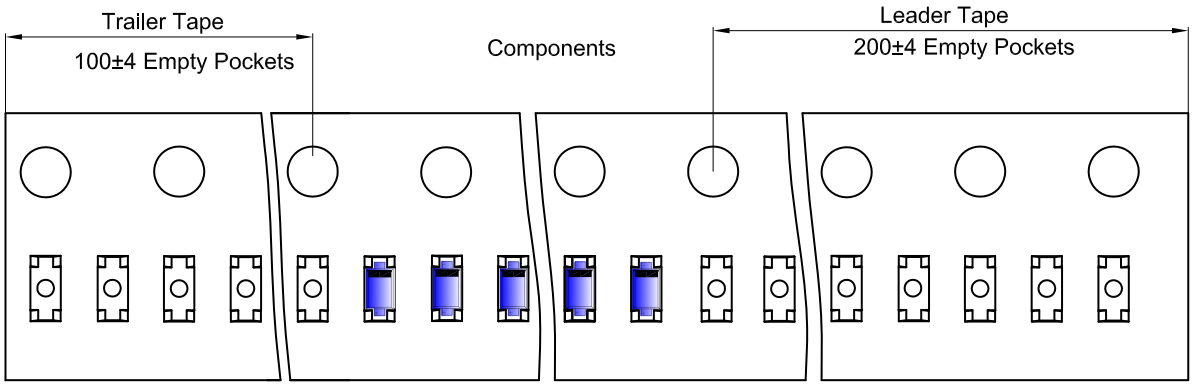
NOTE:TO CAVE 'C' ON CARRIER TAPE PER 120MM

Packaging Description:

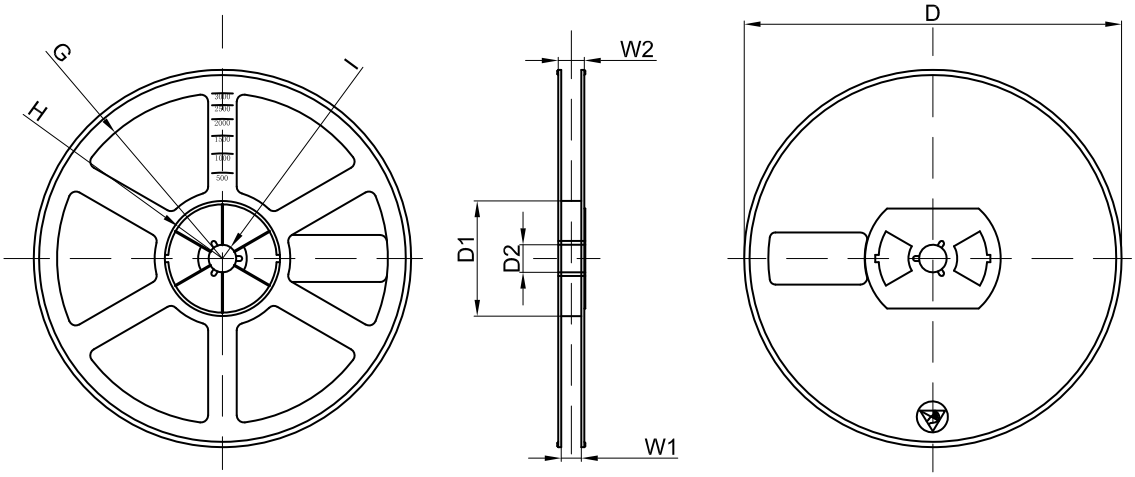
SOD-523 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts 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	