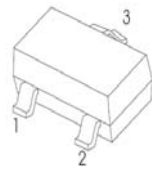
SZCJ

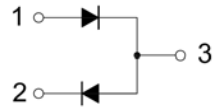
Shenzhen Changji Semiconductor Co., LTD.

SOT-23 Plastic-Encapsulate Diodes

MMBD7000 SWITCHING DIODE

SOT-23

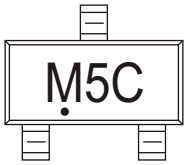




FEATURES

- Dual Swithching Diode
- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications

MARKING: M5C



M5C = Device code
Solid dot = Green molding compound device.

Maximum Ratings@Ta=25℃

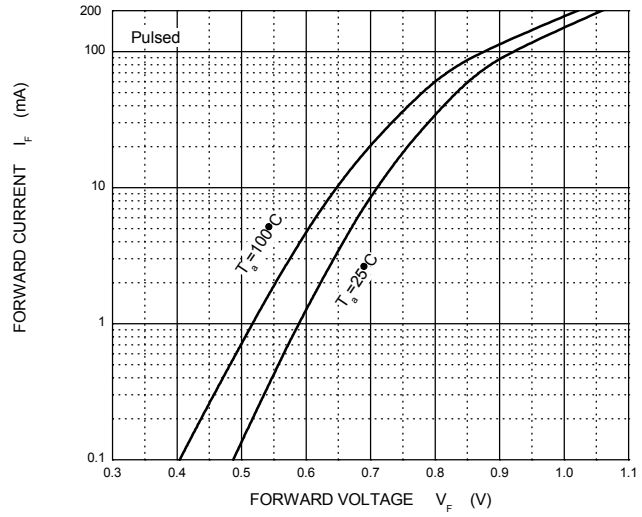
Parameter	Symbol	Limits	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage	V_{RRM} V_{RWM}	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Average Rectified Output Current	I_O	200	mA
Non-Repetitive Peak Forward Surge Current @ t =8.3 ms	I_{FSM}	2	A
Power Dissipation	P_D	225	mW
Thermal Resistance,Junction to Ambient	$R_{\theta JA}$	556	℃/W
Operation Junction and Storage Temperature Range	T_J,T_{STG}	-55~+150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)

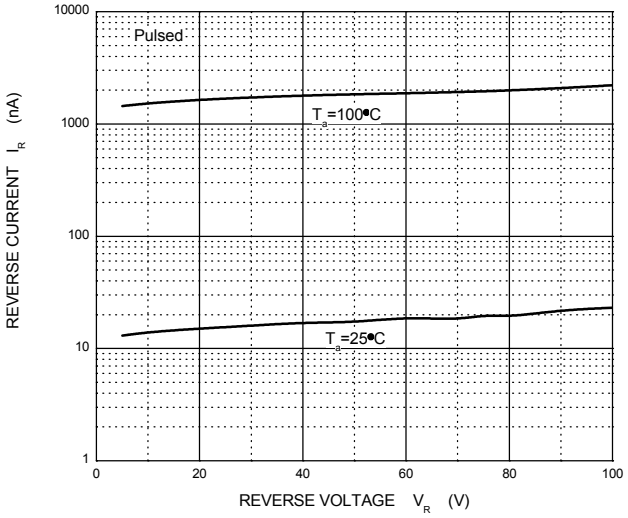
Parameter	Symbol	Test conditions	Min	Max	Unit
Reverse breakdown voltage	$V_{(BR)}$	I_R=100μA	100		V
Reverse voltage leakage current	I_R	V_R=50V V_R=100V		1.0 3.0	μA
Forward voltage	V_F	I_F=1mA I_F=10mA I_F=100mA	0.55 0.67 0.75	0.7 0.82 1.1	V
Diode capacitance	C_T	V_R=0V,f =1.0MHz		2	pF
Reverse recovery time	t_{rr}	I_F=I_R=10mA, Irr=0.1 x IR,RL=100Ω		4	ns

Typical Characteristics

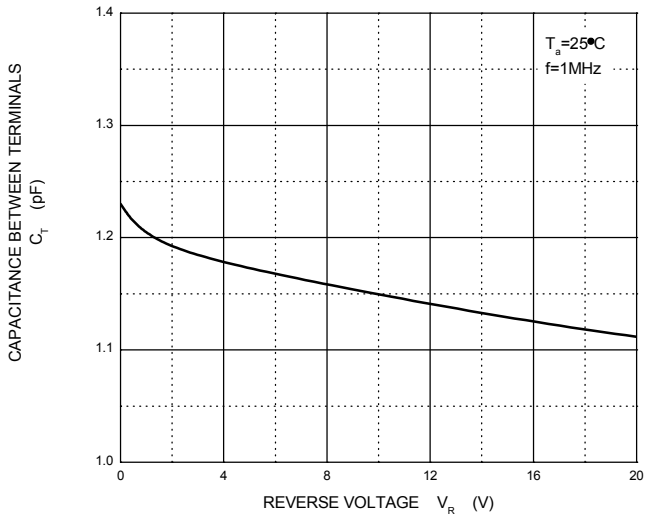
Forward Characteristics



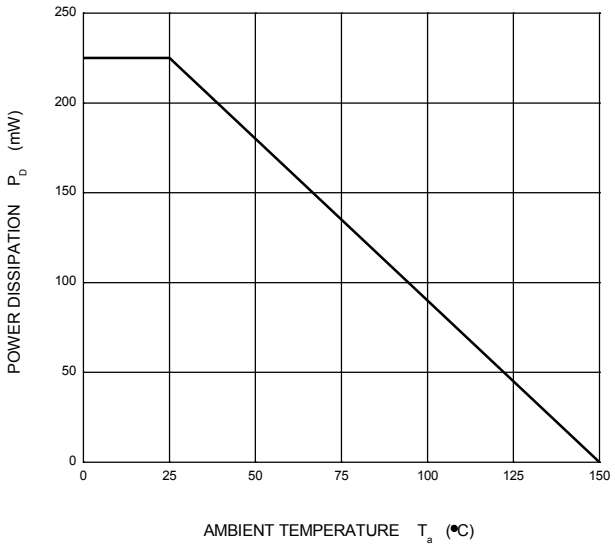
Reverse Characteristics



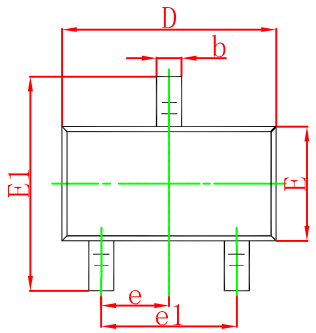
Capacitance Characteristics

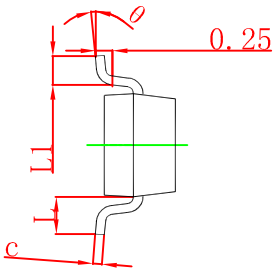


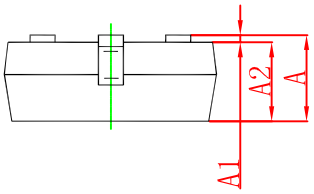
Power Derating Curve



SOT-23 Package Outline Dimensions

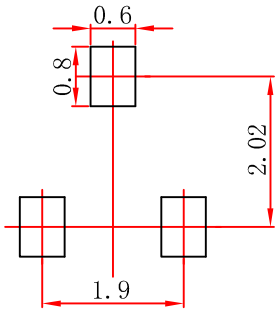






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-23 Suggested Pad Layout

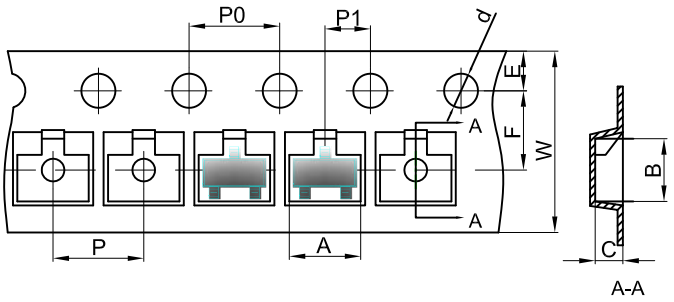


Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

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

SOT-23 Embossed Carrier Tape

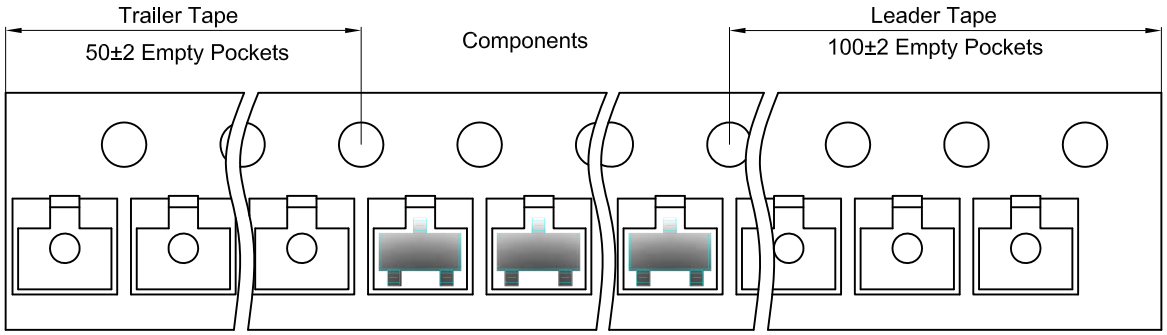


Packaging Description:

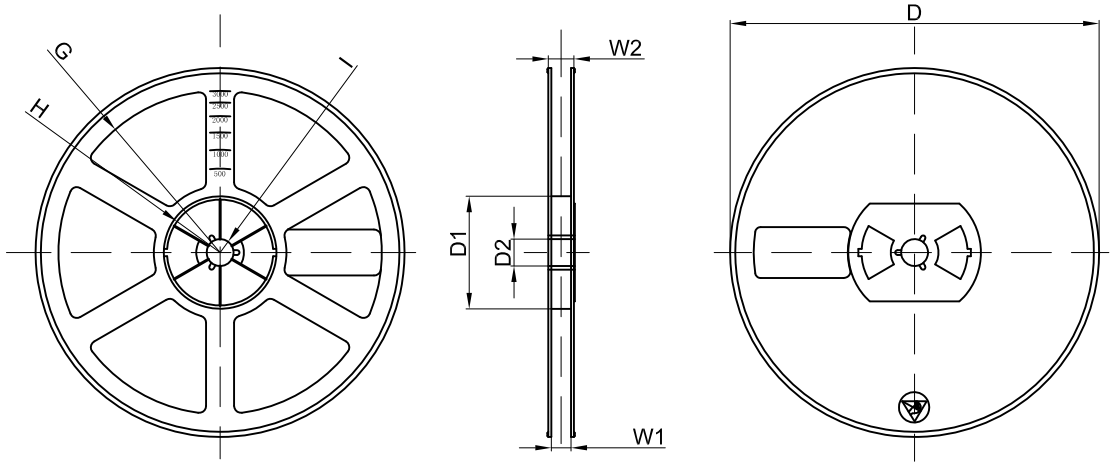
SOT-23 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in 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
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

SOT-23 Tape Leader and Trailer



SOT-23 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)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	