



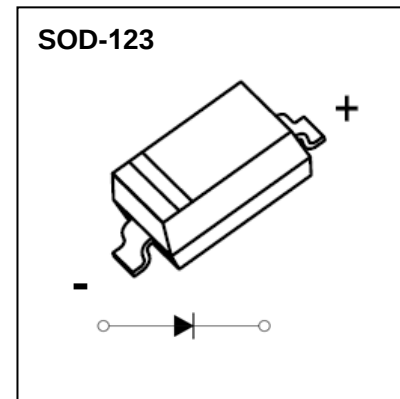
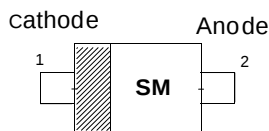
DONGGUAN NANJING ELECTRONICS LTD.,
SOD-123 Plastic-Encapsulate Diodes

B160W Schottky Barrier Diode

FEATURES

- Guard ring protection
- Low forward voltage drop
- For use in low voltage, high frequency inverters
- High surge current capability

Marking: SM



MAXIMUM RATINGS(Ta=25°C unless otherwise noted)

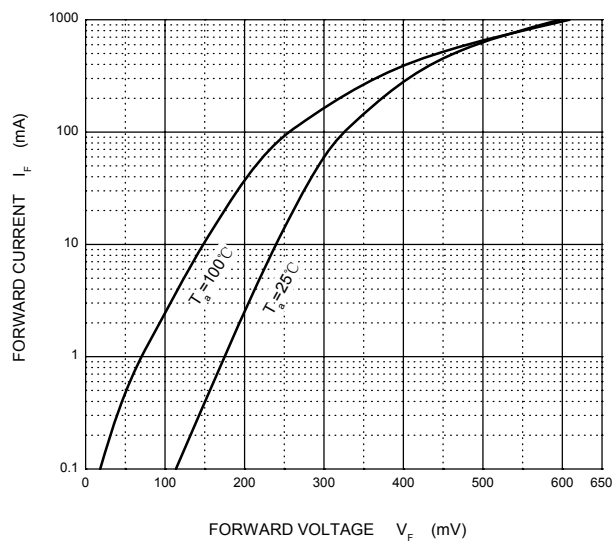
Symbol	Parameter	Value	Unit
V_{RRM}	Maximum recurrent peak reverse voltage	60	V
V_{RMS}	Maximum RMS voltage	42	
V_{DC}	Maximum DC blocking voltage	60	
I_F	Continuous forward current	1	A
I_{FSM}	Non-repetitive Peak forward surge current@t=8.3ms	10	
P_{tot}	Total power dissipation	250	mW
$R_{\theta JA}$	Thermal resistance junction to ambient air	400	°C/W
T_J	Junction temperature	-55~+150	°C
T_{stg}	storage temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS(Ta=25°C unless otherwise specified)

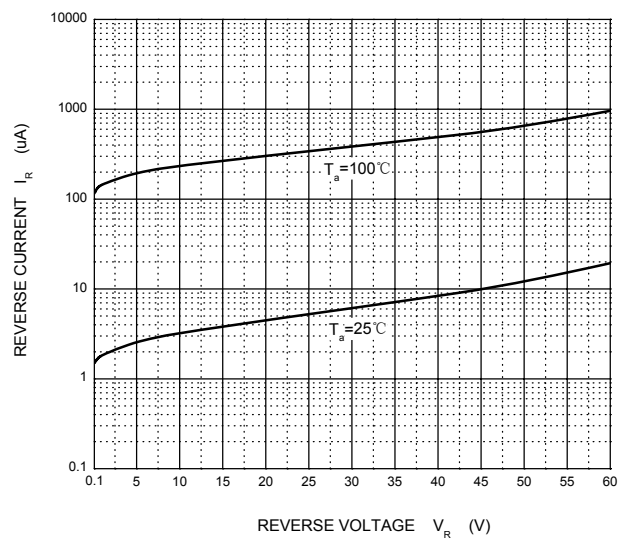
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Maximum instantaneous forward voltage	V_F	$I_F=1A$			0.7	V
Maximum DC reverse current at rated DC blocking voltage	I_R	$V_R=60V$			0.1	mA
Total capacitance	C_{tot}	$V_R=4V, f=1MHz$			120	pF

Typical Characteristics

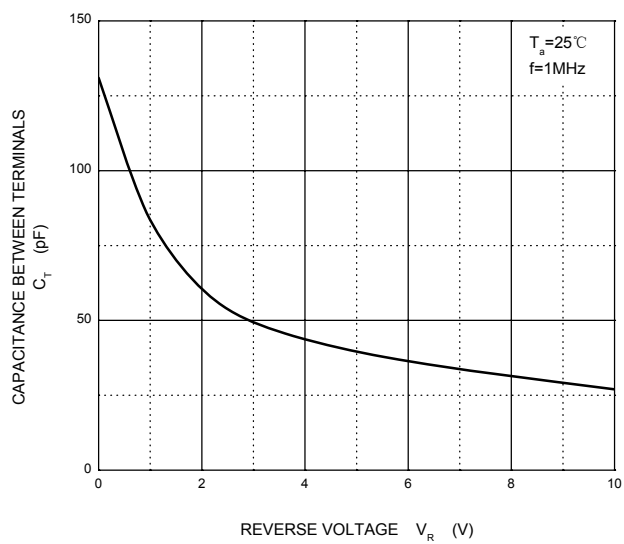
Forward Characteristics



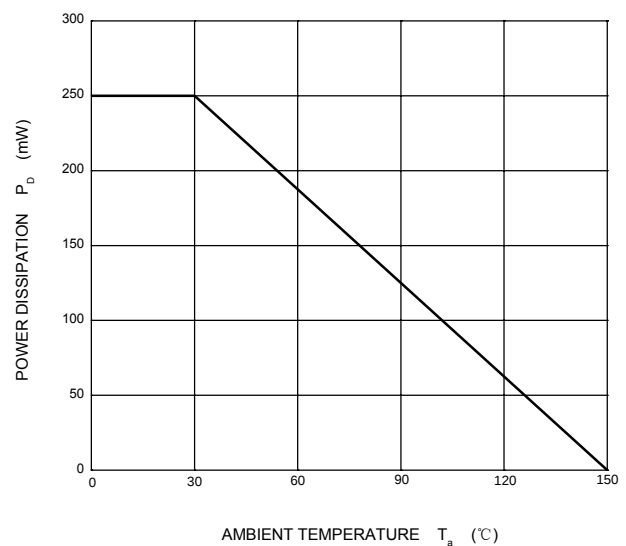
Reverse Characteristics



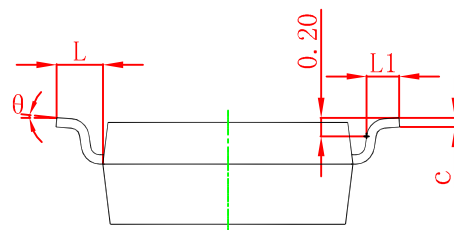
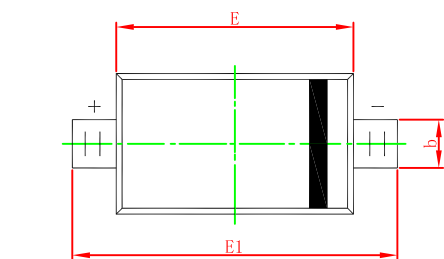
Capacitance Characteristics



Power Derating Curve

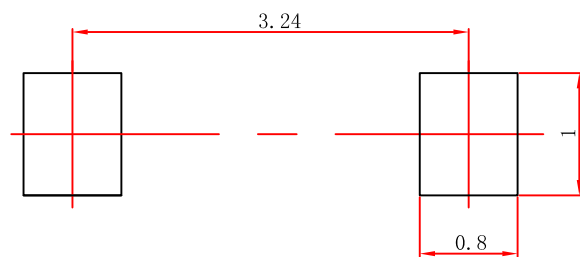


SOD-123 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

SOD-123 Suggested Pad Layout



Note:
1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

SOD-123 Embossed Carrier Tape



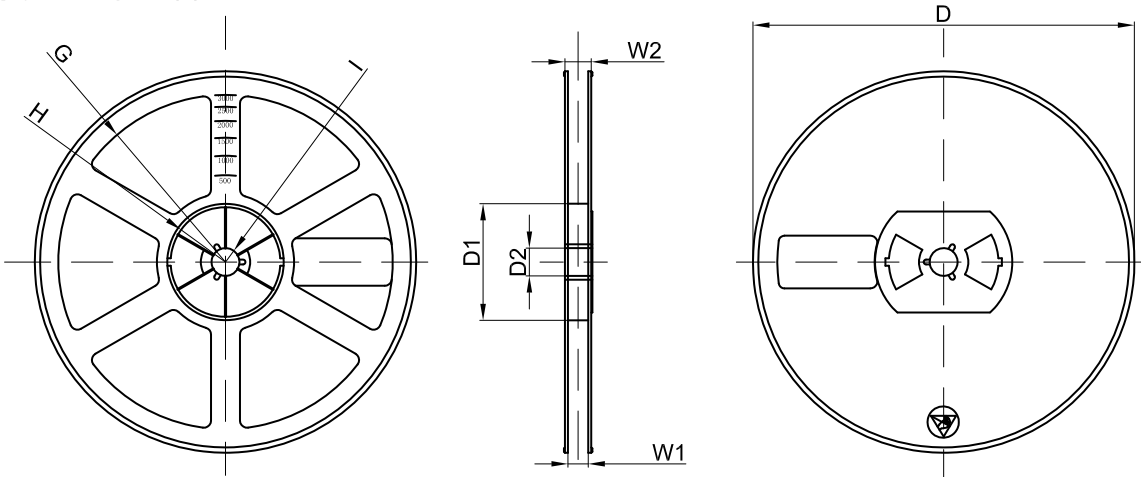
Packaging Description:
SOD-123 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. 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	3.95	1.57	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

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

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	