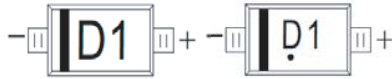


SCHOTTKY BARRIER DIODE

FEATURES

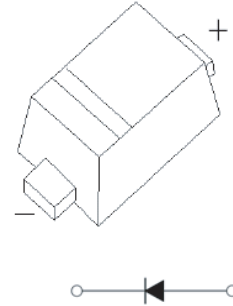
- Small surface mounting type
- Low I_R
- High reliability

MARKING: D1



The marking bar indicates the cathode
Solid dot = Green molding compound device, if none,
the normal device.

SOD-523



MAXIMUM RATINGS (@TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	RB520S-40	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	40	Volts
Maximum RMS Voltage	VRMS	28	Volts
Maximum DC Blocking Voltage	VDC	40	Volts
Maximum Average Forward Rectified Current	IO	0.2	Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	1	Amps
Current Squared Time	I_t^2	0.004	A ² /Sec
Thermal Resistance Junction to Ambient	RθJA	667	°C/W
Thermal Resistance Junction to Soldering	RθJS	20	°C/W
Operating Temperature Range	TJ	125	°C
Storage Temperature Range	TSTG	-55~+150	°C
Power dissipation	PD	150	mW

ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

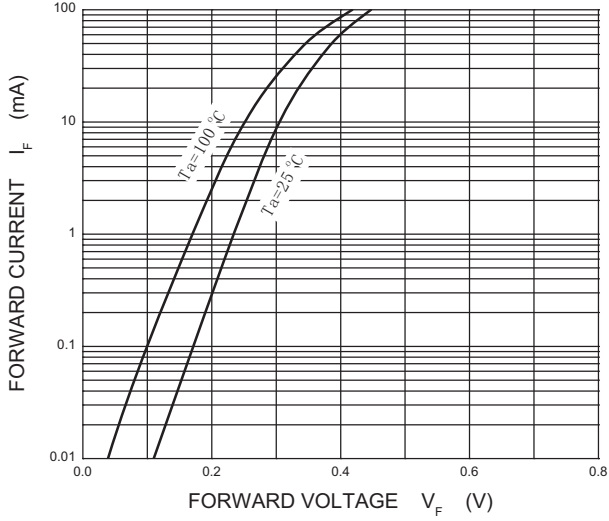
CHARACTERISTICS	SYMBOL	RB520S-40	UNITS
Maximum Instantaneous Forward Voltage at 0.2 A DC	V _F	0.55	Volts
Maximum Average Reverse Current at Rated DC Blocking Voltage @TA = 25°C	I _R	1	μAmps

NOTES : 1. Measured at 1 MHz and applied reverse voltage of 10 volts.
2. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
3. Available for IR reflow & wave soldering

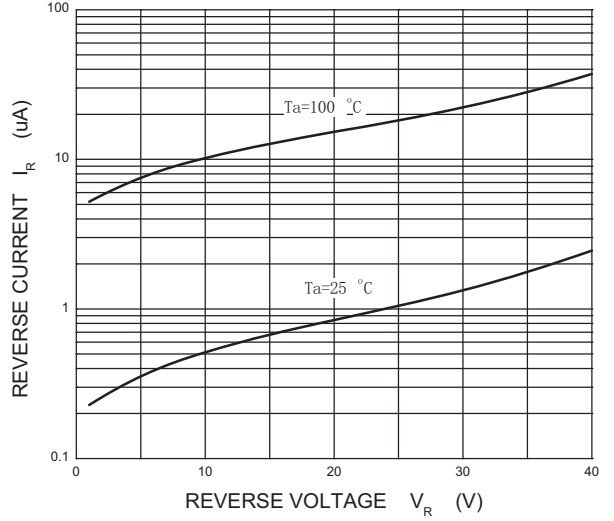
2016-09
REV: A2

RATING AND CHARACTERISTICS CURVES (RB520S-40)

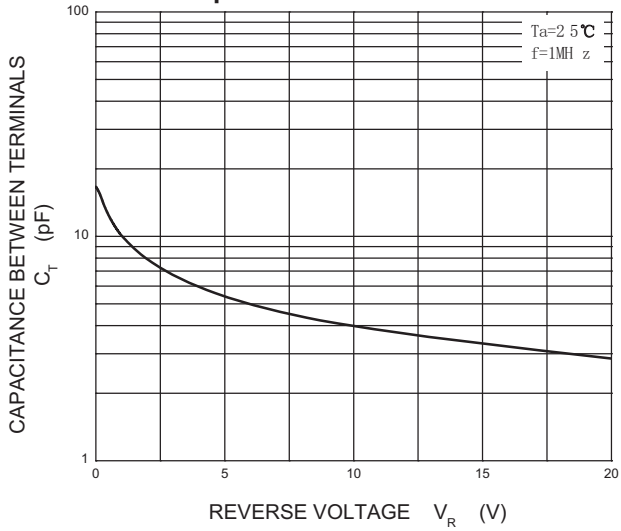
Forward Characteristics



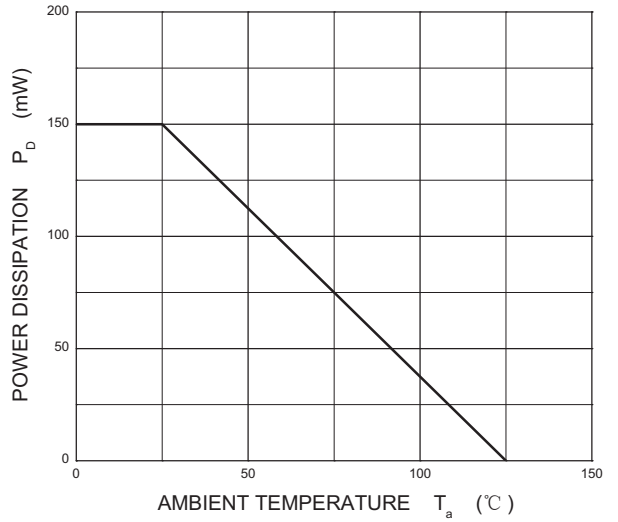
Reverse Characteristics



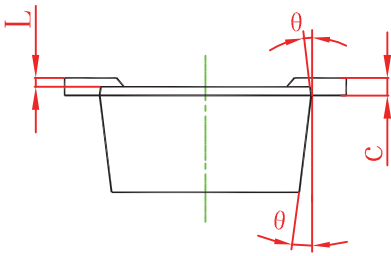
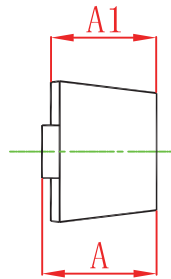
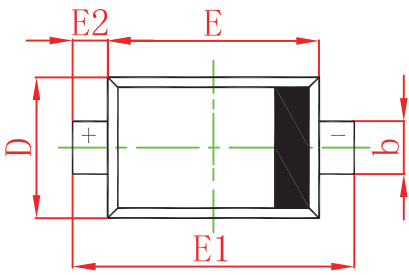
Capacitance Characteristics



Power Derating Curve

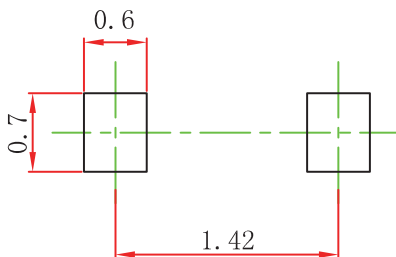


SOD-523 Package Outline Dimensions



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

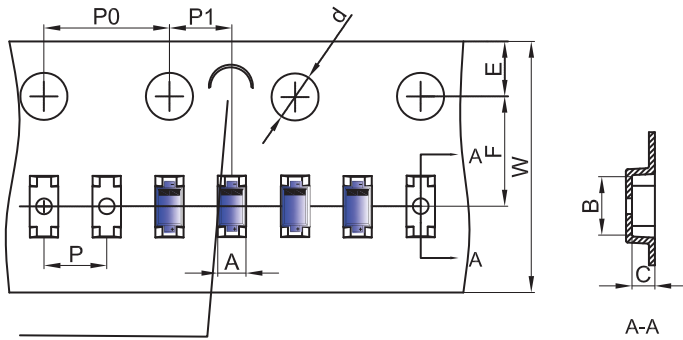


Note:

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

SOD-523 Tape and Reel

SOD-523 Embossed Carrier Tape

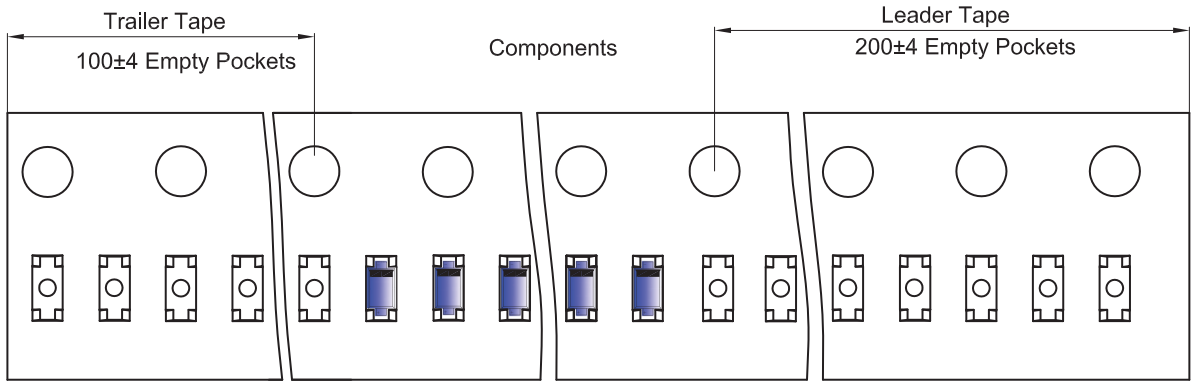


NOTE: TO CAVE 'C' ON CARRIER TAPE PER 120MM

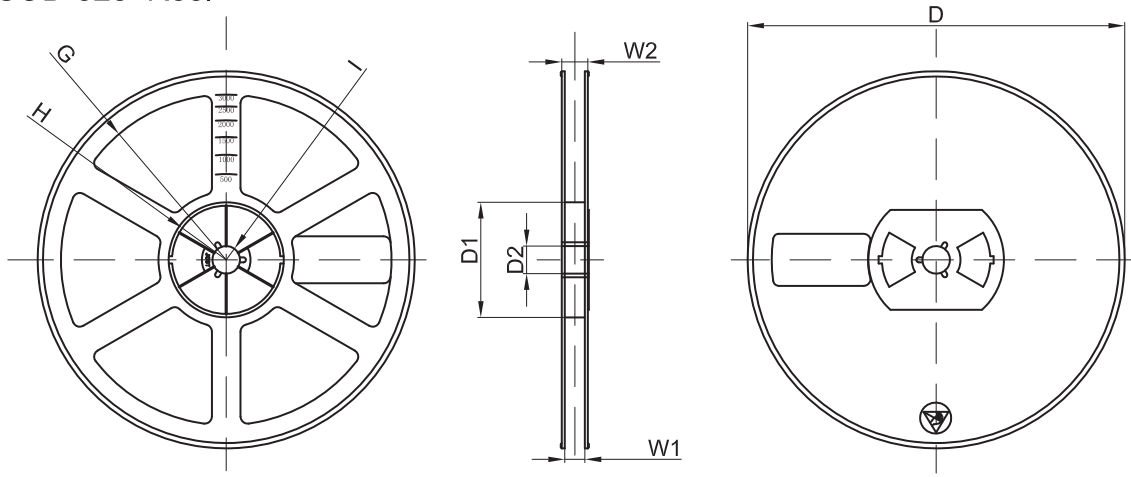
Packaging Description:
 SOD-523 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent.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

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