

SCHOTTKY BARRIER DIODE

Features

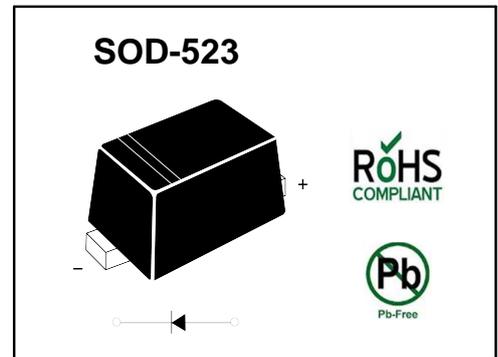
- Very low forward voltage
- Very low reverse current
- Ultra small SMD package

Applications

- Ultra high-speed switching
- Voltage clamping
- Protection circuits
- Low power consumption applications

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



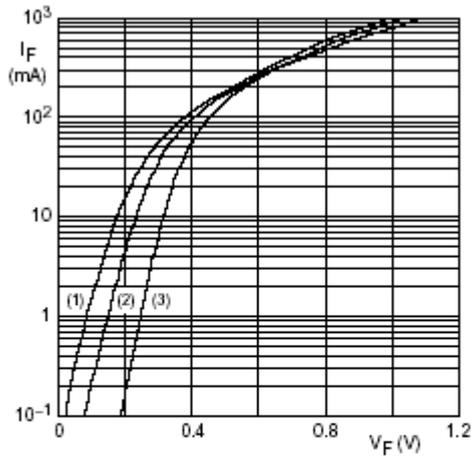
Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	40	V
Continuous Forward Current	I_F	200	mA
Repetitive Peak Forward Current $t_p \leq 1\text{ s}$	I_{FRM}	300	mA
Non-repetitive Peak Forward Current ($t = 8.3\text{ ms}$ half sinewave)	I_{FSM}	1	A
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	- 65 to + 150	$^\circ\text{C}$
Operating Ambient Temperature	T_{amb}	- 65 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

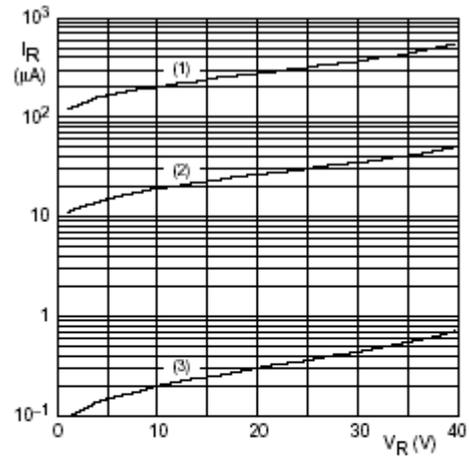
Parameter	Symbol	Max.	Unit
Forward Voltage at $I_F = 0.1\text{ mA}$ at $I_F = 1\text{ mA}$ at $I_F = 10\text{ mA}$ at $I_F = 100\text{ mA}$ at $I_F = 200\text{ mA}$	V_F	220 290 360 500 600	mV
Reverse Current at $V_R = 25\text{ V}$	I_R	0.5	μA
Diode Capacitance at $V_R = 1\text{ V}$, $f = 1\text{ MHz}$	C_D	20	pF

Typical Characteristics



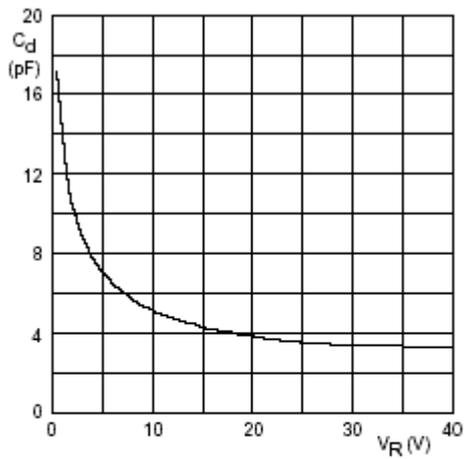
- (1) $T_{amb} = 125^\circ\text{C}$.
- (2) $T_{amb} = 85^\circ\text{C}$.
- (3) $T_{amb} = 25^\circ\text{C}$.

Fig.1 Forward current as a function of forward voltage; typical values.



- (1) $T_{amb} = 125^\circ\text{C}$.
- (2) $T_{amb} = 85^\circ\text{C}$.
- (3) $T_{amb} = 25^\circ\text{C}$.

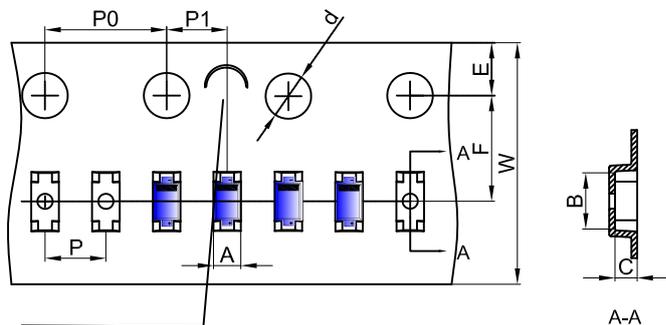
Fig. 2 Reverse current as a function of reverse voltage; typical values.



$f = 1 \text{ MHz}$; $T_{amb} = 25^\circ\text{C}$.

Fig. 3 Diode capacitance as a function of reverse voltage; typical values.

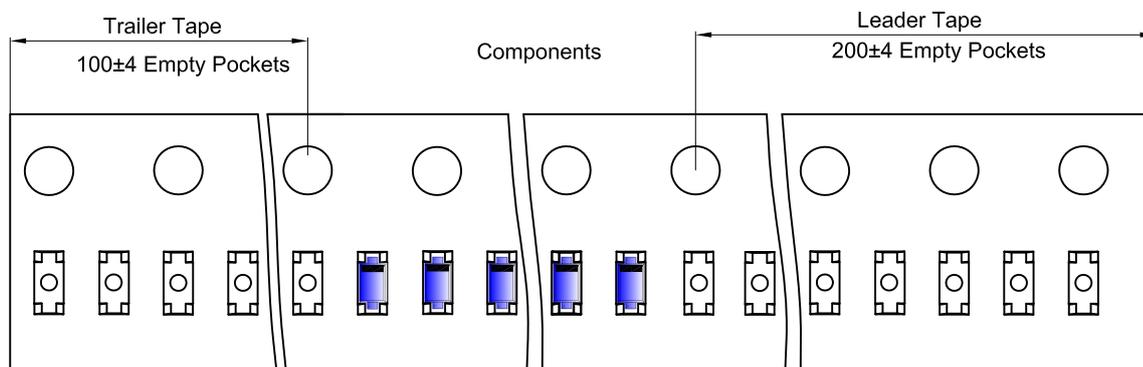
SOD-523 Embossed Carrier Tape



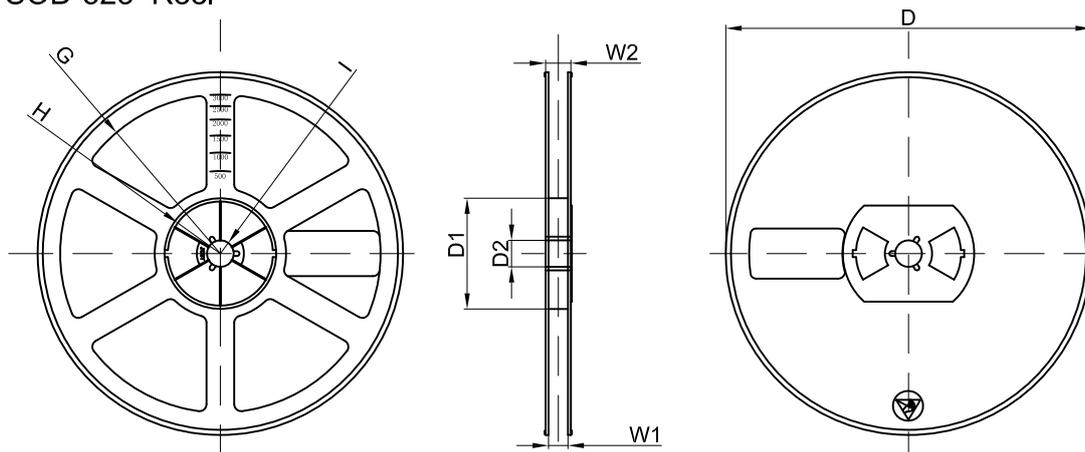
NOTE: TO GAVE 'C' ON CARRIER TAPE PER 120MM

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



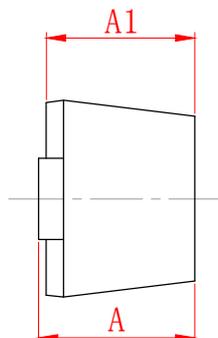
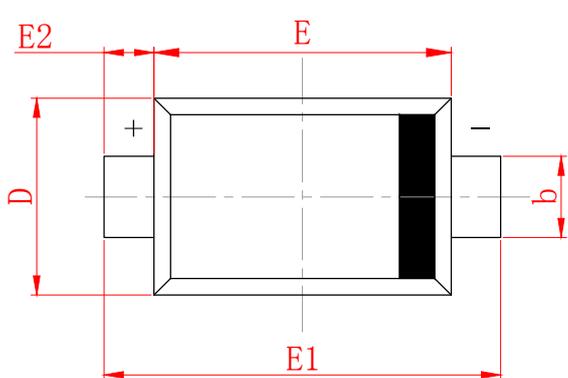
SOD-523 Reel



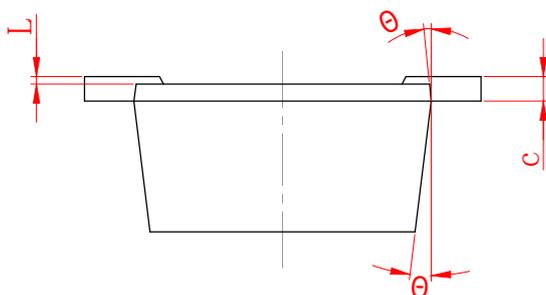
Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

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	

SOD-523 Package Outline Dimensions



SYMBOL	MILLIMETER	
	MIN	MAX
A	0.530	0.730
A1	0.500	0.700
b	0.280	0.380
c	0.080	0.150
D	0.750	0.850
E	1.100	1.300
E1	1.500	1.700
E2	0.200 REF	
L	0.010	0.070
θ	7° REF	



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