

PRIMARY CHARACTERISTICS

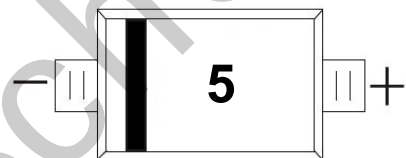
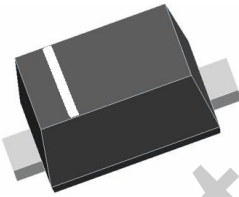
VRRM	I (AV)	VF(type)	I FSM	Tj max
40V	30mA	0.37V	0.2A	150°C

Features

- High Current Capability
- Low Forward Voltage Drop

Mechanical Data

- SOD-523 Small Outline Plastic Package
- Polarity: Color band denotes cathode end
- Mounting Position: Any

SOD523

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
RB751S-40	SOD-523	5	3000

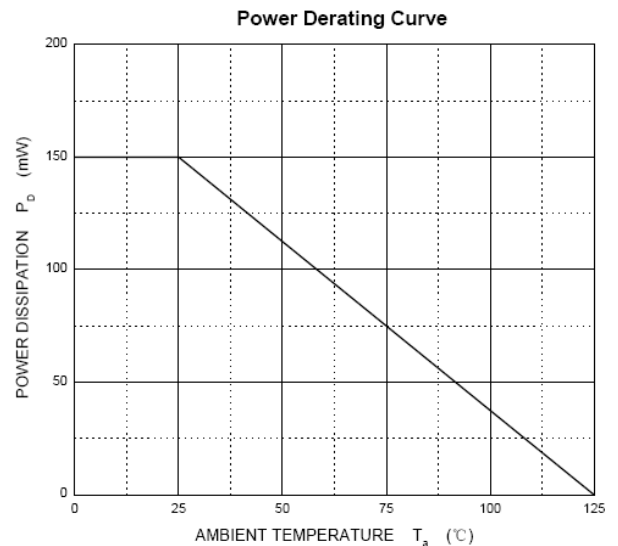
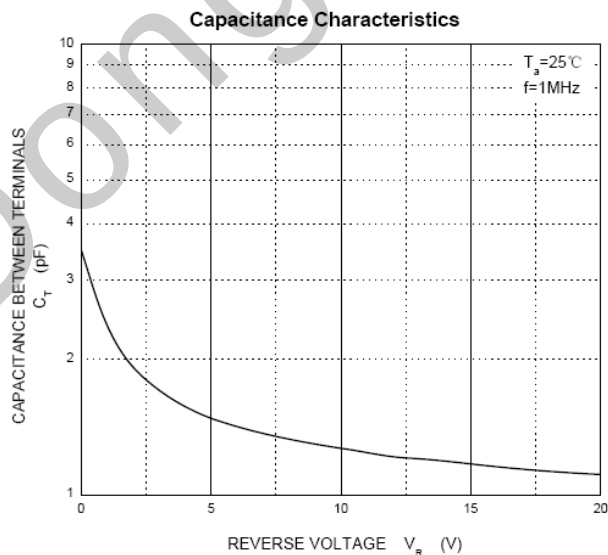
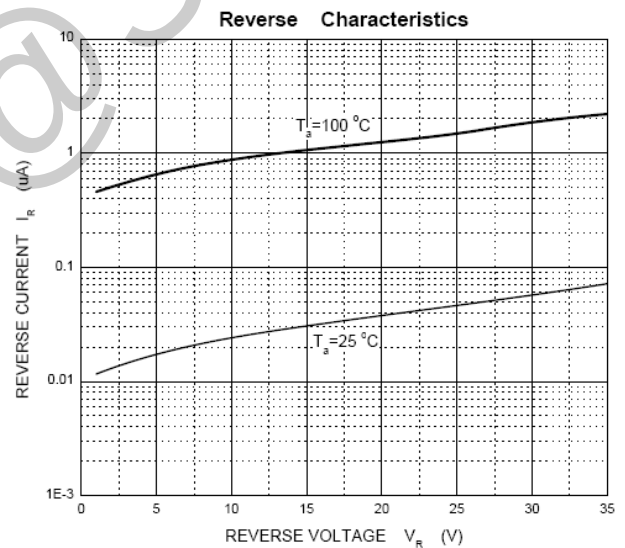
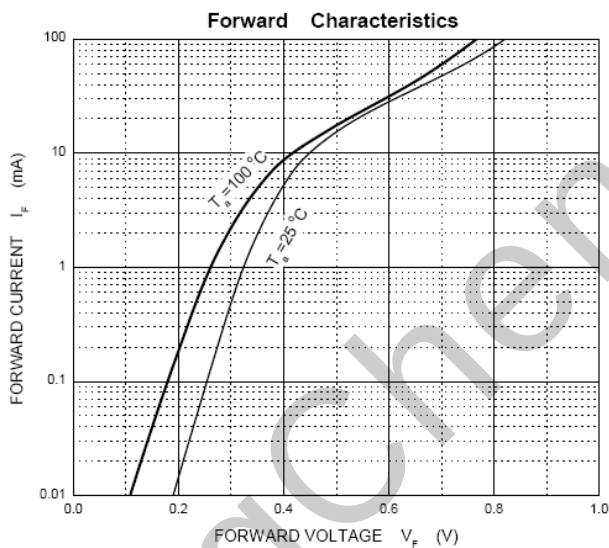
Absolute Maximum Ratings (TC=25°C unless otherwise noted)

Parameters	Symbols	Limits	Units
Maximum repetitive peak reverse voltage	VRRM	40	V
Maximum RMS voltage	VRMS	-	V
Maximum DC blocking voltage	VDC	30	V
Maximum average forward rectified current at TC=100 C	I(AV)	0.03	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	IFSM	0.2	A
Power Dissipation	PD	125	mW
Typical junction capacitance (Note1)	CJ	2	pF
Typical thermal resistance (Note2)	RthJA	667	°C/W
	RthJC	-	
Operating junction temperature range	TJ	-	°C
Storage temperature range	TSTG	-50~+150	°C

Electrical Characteristics (T_J=25°C , unless otherwise noted)

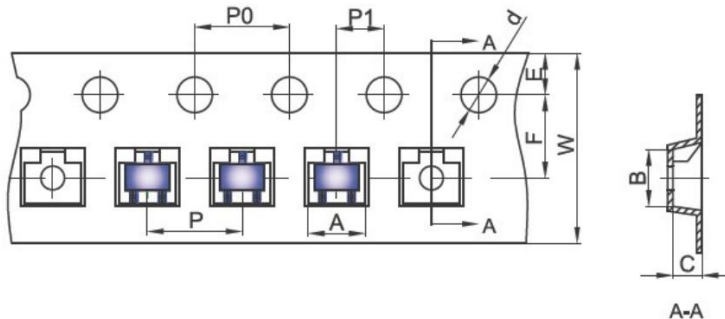
Parameter	Symbols	Test Conditions	Min	Type	Max	Units
Minimum reverse breakdown voltage	VR	IR=1mA	40	-	-	V
Maximum instantaneous forward voltage	VF	IF=1mA	-	-	0.37	V
		-	-	-	-	
		-	-	-	-	
		-	-	-	-	
Maximum DC reverse current at rated DC blocking voltage	IR	TA=25°C, VR=30V	-	-	0.5	uA
Capacitance between terminals	CT	VR=1V, f=1MHz	-	2	-	pF

特性曲线 Characteristic Curves



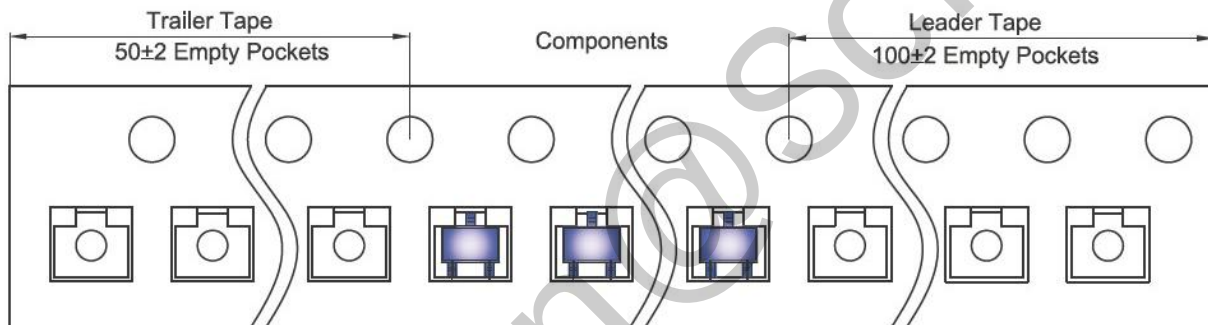
Package Information

Carrier Dimension(mm)

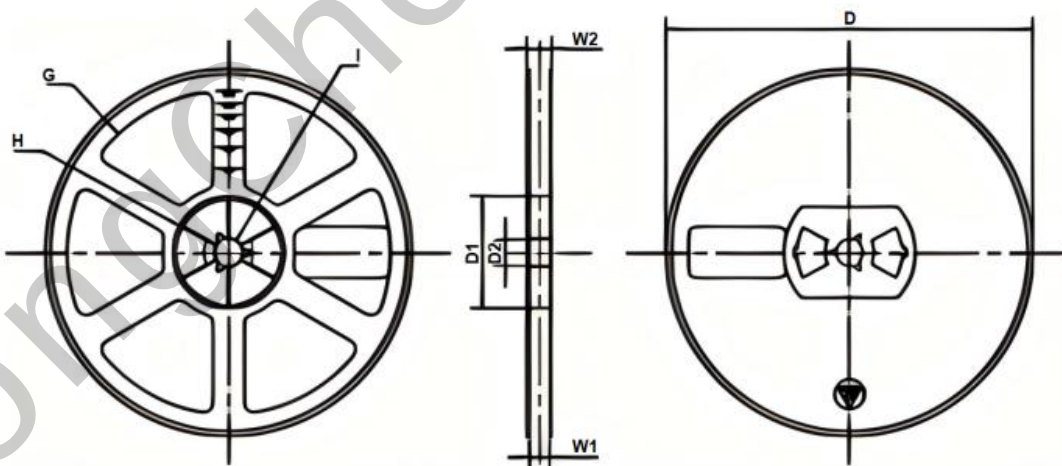


Dimensions are in millimeter

Pkg Type	A	B	C	d	E	F	P0	P	P1	W
SOT-323	2.25	2.55	1.19	01.55	1.75	3.50	4.00	4.00	2.00	8.00



Reel Dimension(mm)



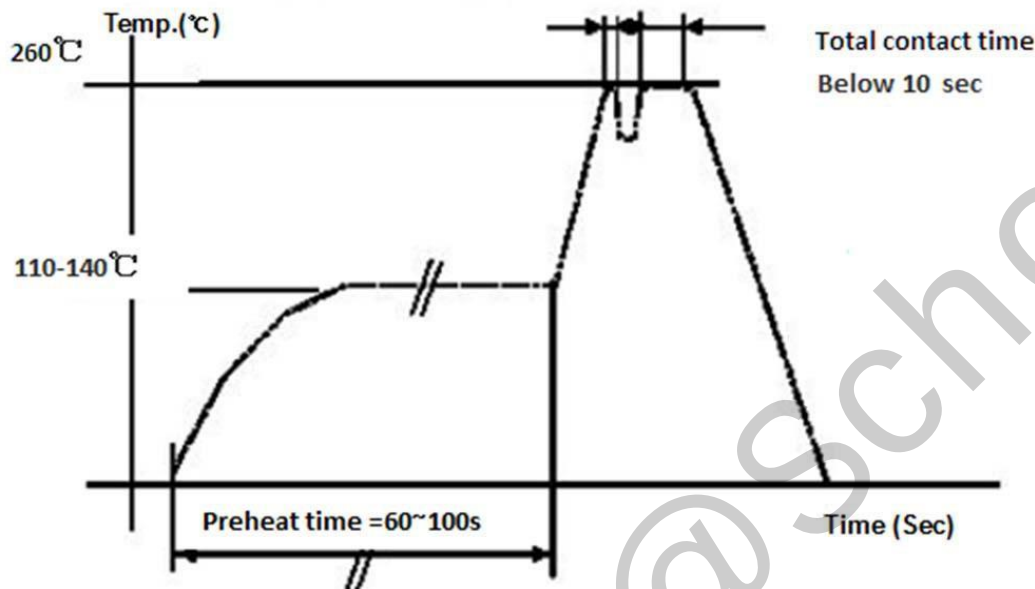
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Φ178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30
Tolerance	±2	±1	±1	±1	±1	±1	±1	±1

Package Specifications

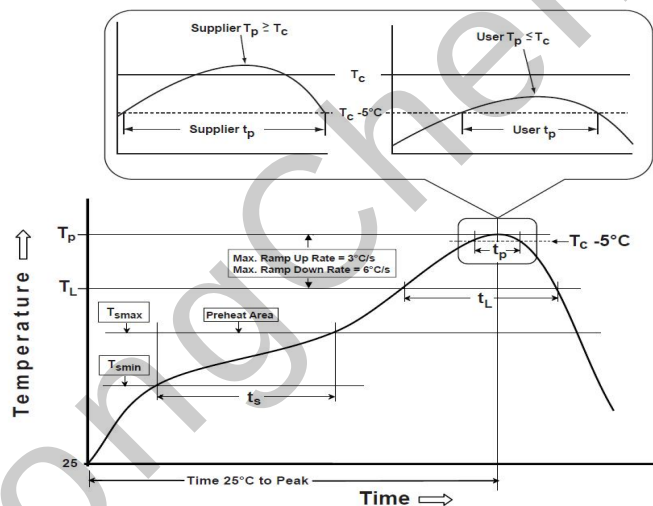
Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
SOT323	7'	178	3	210*208*203	45	440*400*230	180

Recommended Soldering Profile for Rectifier Diodes (Pb Free)

a) Wave Soldering Profile



b) Reflow Soldering Profile (Pb Free Application), refer to IPC/JEDEC J-STD-020



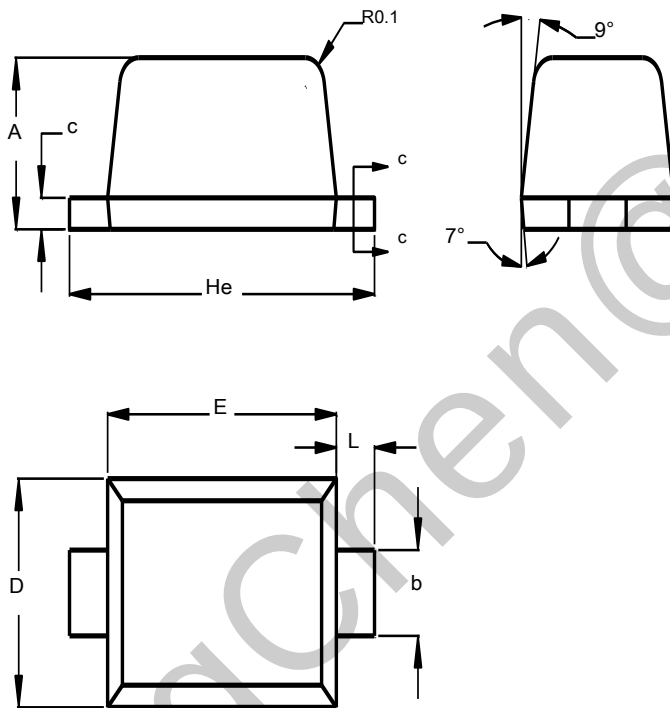
Preheat/Soak Temperature Min (T _{smin}) Temperature Max (T _{smax}) Time (t _s) from (T _{smin} to T _{smax})	50 °C 200 °C 60-120 seconds
Melting Point of Solder (Sn Ag Cu)	217°C
Ramp-up Rate to 217°C(Melting Point of Solder)	3°C/sec
Time at Temp.>217°C (Melting Point of Solder)	60~150 Sec
Peak Temperature	255±5°C
Time within 5°Cbelow Peak Temp.	20~40 Sec
Cooling Rate	6°C/sec (max)
Time from 25°C to Peak Temp.	8min (max)

c) Manual Soldering

When using an electric soldering iron for manual soldering, it is recommended that the temperature does not exceed 300°C and the soldering time is less than 10 seconds.

Outline Drawing

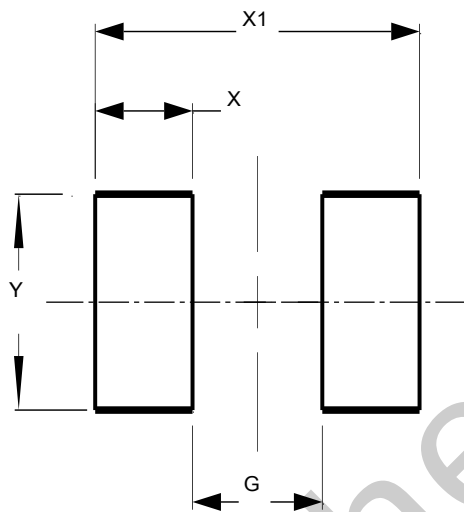
SOD523



SOD523		
Dim	Min	Max
A	0.55	0.65
b	0.26	0.34
c	0.11	0.17
D	0.75	0.85
E	1.15	1.25
He	1.55	1.65
L	0.10	0.30
All Dimensions in mm		

Suggested Soldering Pad Layout

SOD523



Dimensions	Value (in mm)
G	0.80
X	0.60
X1	2.00
Y	0.70

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