

Small Signal Diode



Features

- ◇ Low power loss, high current capability, low V_F
- ◇ Surface device type mounting
- ◇ Moisture sensitivity level 1
- ◇ Matte Tin(Sn) lead finish with Nickel(Ni) underplate
- ◇ Pb free version and RoHS compliant
- ◇ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

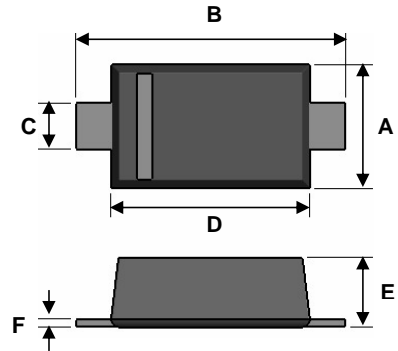
Mechanical Data

- ◇ Case : Flat lead SOD-323F small outline plastic package
- ◇ Terminal: Matte tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed
- ◇ High temperature soldering guaranteed: 260°C/10s
- ◇ Polarity : Indicated by cathode band
- ◇ Weight : 4.85±0.5 mg
- ◇ Marking Code : S9

Ordering Information

Part No.	Package	Packing Code	Packing	Marking
RB500V-40	SOD-323F	RR	3K / 7" Reel	S9
RB500V-40	SOD-323F	RRG	3K / 7" Reel	S9

SOD-323F

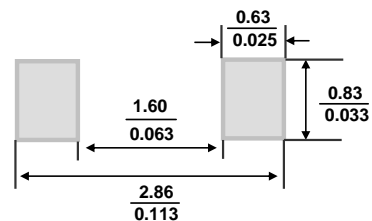


Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.15	1.40	0.045	0.055
B	2.30	2.80	0.091	0.110
C	0.25	0.40	0.010	0.016
D	1.60	1.80	0.063	0.071
E	0.80	1.10	0.031	0.043
F	0.05	0.15	0.002	0.006

Pin Configuration



Suggested PAD Layout



Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum Ratings

Type Number	Symbol	Value	Units
Power Dissipation	P _D	200	mW
Peak Reverse Voltage	V _{RM}	45	V
Reverse Voltage	V _R	40	V
Mean Forward Current	I _o	0.1	A
Non-Repetitive Peak Forward Surge Current 60Hz for 1Cyc.	I _{FSM}	1.0	A
Thermal Resistance (Junction to Ambient) (Note)	R _{θJA}	500	°C/W
Junction and Storage Temperature Range	T _J , T _{STG}	-40 to + 125	°C

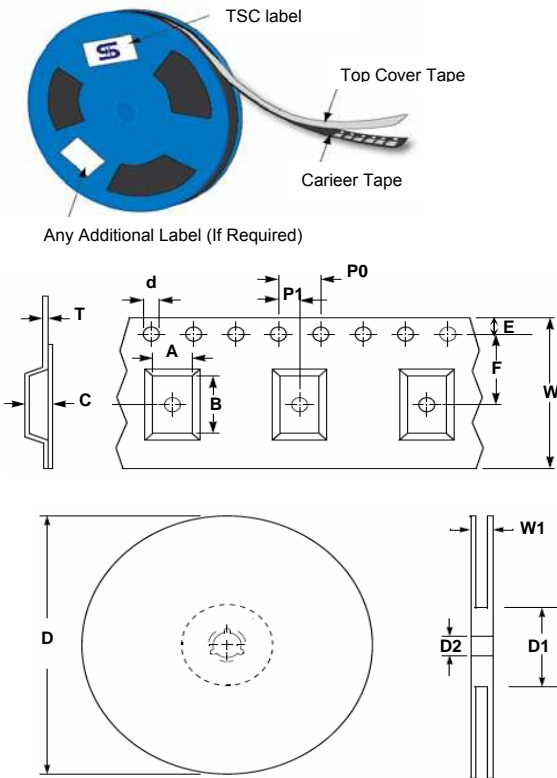
Notes:1. Valid provided that electrodes are kept at ambient temperature

Small Signal Diode

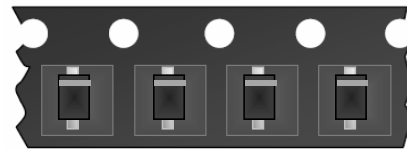
Electrical Characteristics

Type Number		Symbol	Min	Max	Units
Reverse Breakdown Voltage	$I_R = 100\mu A$	$V_{(BR)}$	45	-	V
Forward Voltage	$I_F = 10mA$	V_F	-	0.45	V
Reverse Leakage Current	$V_R = 10V$	I_R	-	1	μA
Junction Capacitance	$V_R = 0V, f = 1.0MHz$	C_J	-	6.0	pF

Tape & Reel specification



Item	Symbol	Dimension(mm)
Carrier width	A	1.7 ± 0.10
Carrier length	B	3.73 ± 0.10
Carrier depth	C	1.68 ± 0.10
Sprocket hole	d	1.5 ± 0.1
Reel outside diameter	D	178 ± 1
Reel inner diameter	D1	55 Min
Feed hole width	D2	13.0 ± 0.20
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.05
Sprocket hole pitch	P0	4.00 ± 0.10
Embossment center	P1	2.00 ± 0.05
Overall tape thickness	T	0.23 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W1	14.4 Max



Small Signal Diode

Rating and Characteristic Curves

