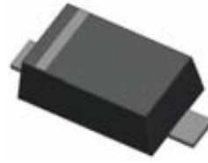


**Small Signal Product**
**200mW, SMD High Speed Switching Diode**
**FEATURES**

- Fast switching device (  $t_{rr} < 4.0$  ns )
- Surface mount device type
- Moisture sensitivity level 1
- Matte Tin(Sn) lead finish
- Pb free 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-523F 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: 1.68 ± 0.5mg
- Marking code: A

**SOD-523F**


<b>MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS</b> ( $T_A=25^\circ\text{C}$ unless otherwise noted)			
<b>PARAMETER</b>	<b>SYMBOL</b>	<b>LIMIT</b>	<b>UNIT</b>
Power Dissipation	$P_D$	200	mW
Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Reverse Voltage	$V_R$	100	V
Mean Forward Current	$I_O$	200	mA
Peak Forward Surge Current	$I_{FSM}$	500	mA
Thermal Resistance (Junction to Ambient)	$R\theta_{JA}$	625	$^\circ\text{C}/\text{W}$
Storage Temperature Range	$T_J, T_{STG}$	-55 to + 150	$^\circ\text{C}$

<b>PARAMETER</b>	<b>SYMBOL</b>	<b>MIN</b>	<b>TYP</b>	<b>MAX</b>	<b>TEST CONDITION</b>	<b>UNIT</b>
Breakdown Voltage	$V_{(BR)}$	100		-	$I_R = 100 \mu\text{A}$	V
Forward Voltage	$V_F$	-		1.2	$I_F = 100 \text{ mA}$	V
Reverse Leakage Current	$I_R$	-		0.1	$V_R = 80 \text{ V}$	$\mu\text{A}$
Reverse Recovery Time	$t_{rr}$			4	$I_F = 10 \text{ mA}, V_R = 6 \text{ V}, R_L = 100 \Omega$	nS
Junction Capacitance	$C_J$	-		4	$V_R = 0.5 \text{ V}, f = 1.0 \text{ MHz}$	pF

**Small Signal Product**

**RATINGS AND CHARACTERISTICS CURVES (1SS400)**

(TA=25°C unless otherwise noted)

Fig. 1 Total Capacitance

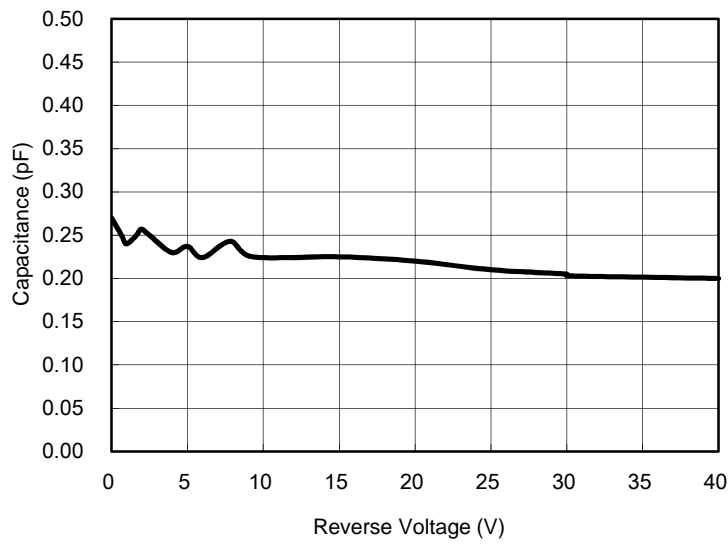


Fig. 2 Forward Voltage VS. Ambient Forward Current

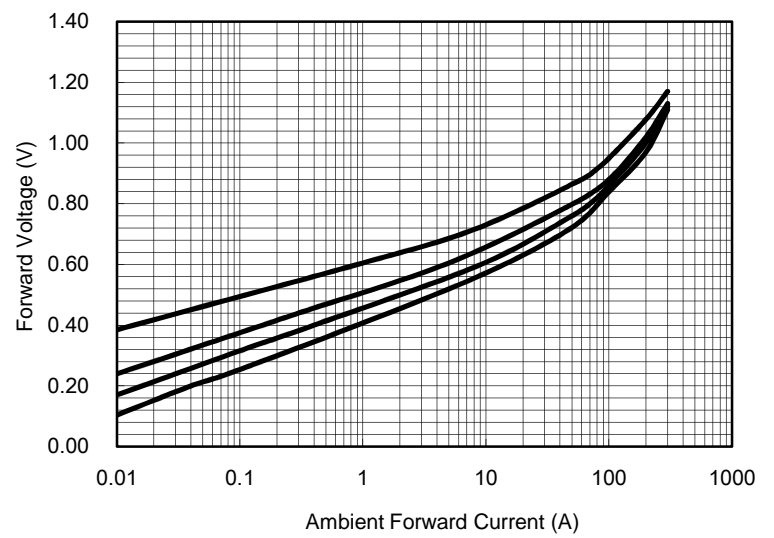


Fig. 3 Power Derating Curve

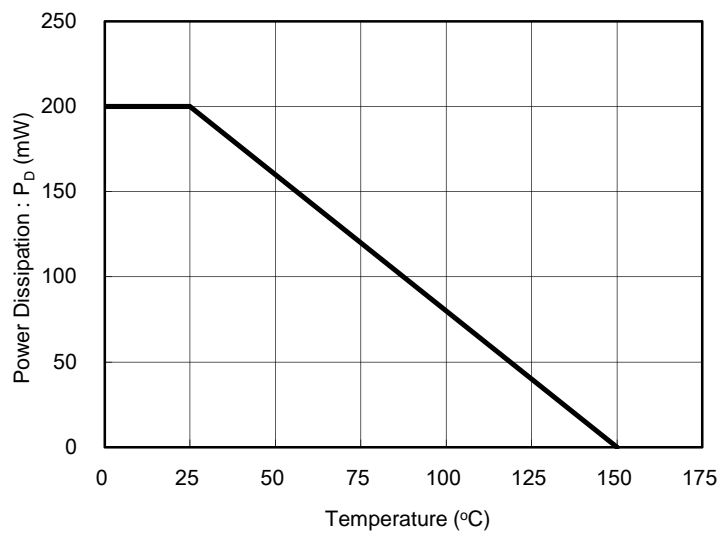
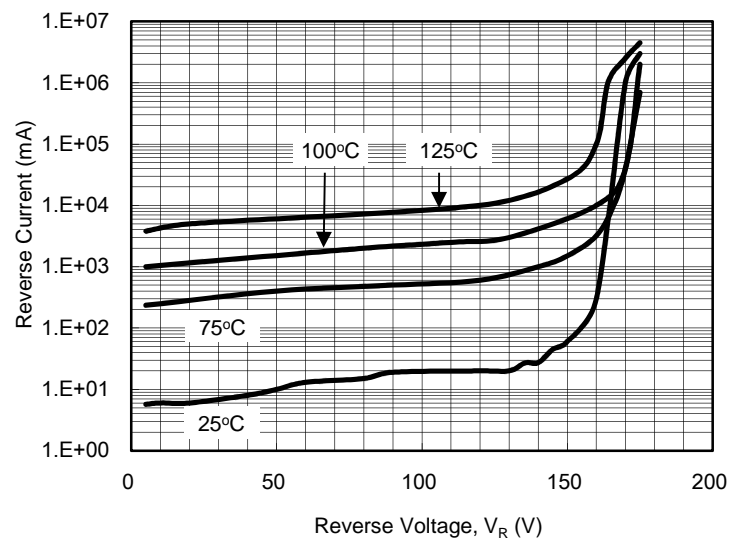


Fig. 4 Reverse Current VS. Reverse Voltage



**Small Signal Product**

<b>ORDERING INFORMATION</b>						
<b>PART NO.</b>	<b>MANUFACTURE CODE (Note)</b>	<b>PACKING CODE</b>	<b>GREEN COMPOUND</b>	<b>PACKAGE</b>	<b>PACKING</b>	<b>MARKING</b>
1SS400		RK	G	SOD-523F	3K / 7" Reel	A
1SS400		RS	G	SOD-523F	8K / 7" Reel	A

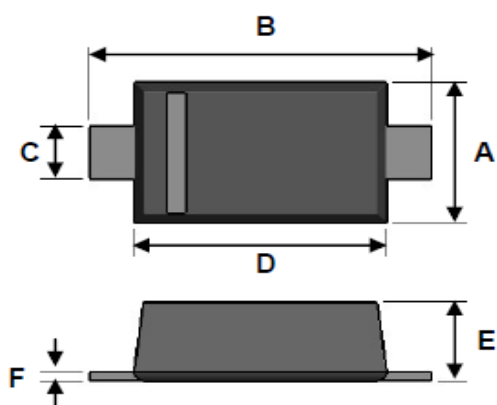
Note: Manufacture special control, if empty means no special control requirement.

<b>EXAMPLE</b>					
<b>PREFERRED P/N</b>	<b>PART NO.</b>	<b>MANUFACTURE CODE</b>	<b>PACKING CODE</b>	<b>GREEN COMPOUND CODE</b>	<b>DESCRIPTION</b>
1SS400 RKG	1SS400		RK	G	Green compound
1SS400-L0 RKG	1SS400	L0	RK	G	Green compound
1SS400-B0 RKG	1SS400	B0	RK	G	Green compound

**Small Signal Product**

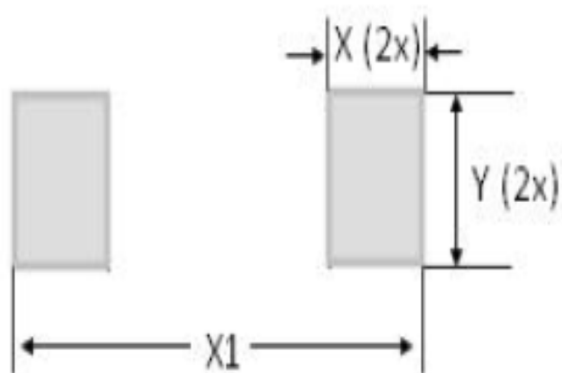
**DIMENSIONS**

**SOT-523F**



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	0.70	0.90	0.028	0.035
B	1.50	1.70	0.059	0.067
C	0.25	0.40	0.010	0.016
D	1.10	1.30	0.043	0.051
E	0.50	0.77	0.020	0.030
F	0.07	0.20	0.003	0.008

**SUGGESTED PAD LAYOUT**



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
X	0.60	0.024
X1	2.30	0.091
Y	0.80	0.031

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