

Small Signal Product

200mW, Low V_F SMD Schottky Barrier Diode

FEATURES

- Low power loss, high current capability, low V_F
- Surface mount device type
- Moisture sensitivity level 1
- Matte Tin (Sn) lead finish with Nickel (Ni) underplate
- Pb free and RoHS compliant
- Packing code with suffix "G" means green compound (halogen-free)



SOD-523F



MECHANICAL DATA

- Case: SOD-523F small outline plastic package
- Molding compound, UL flammability classification rating 94V-0
- 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 ± 0.5 mg
- Marking code: C



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P_D	200	mW
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Reverse Voltage	V_R	30	V
Mean Forward Current @ $T_L=100^\circ\text{C}$	I_O	200	mA
Non-Repetitive Peak Forward Surge Current (Note 1)	I_{FSM}	1	A
Thermal Resistance (Junction to Ambient)	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +125	$^\circ\text{C}$

Note 1: Test condition: 8.3 ms single half sine-wave superimposed on rated load

PARAMETER	SYMBOL	MIN	TYP	MAX	TEST CONDITION	UNIT
Reverse Breakdown Voltage	$V_{(BR)}$	30	-	-	$I_R = 500 \mu\text{A}$	V
Forward Voltage	V_F	-	-	0.5	$I_F = 200 \text{ mA}$	V
Reverse Leakage Current	I_R	-	-	30	$V_R = 10 \text{ V}$	μA

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RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig. 1 Forward Characteristics

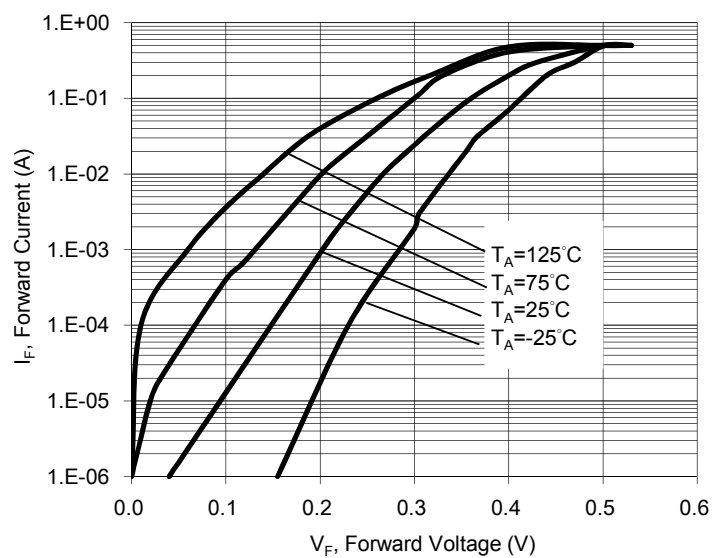


Fig. 2 Reverse Characteristics

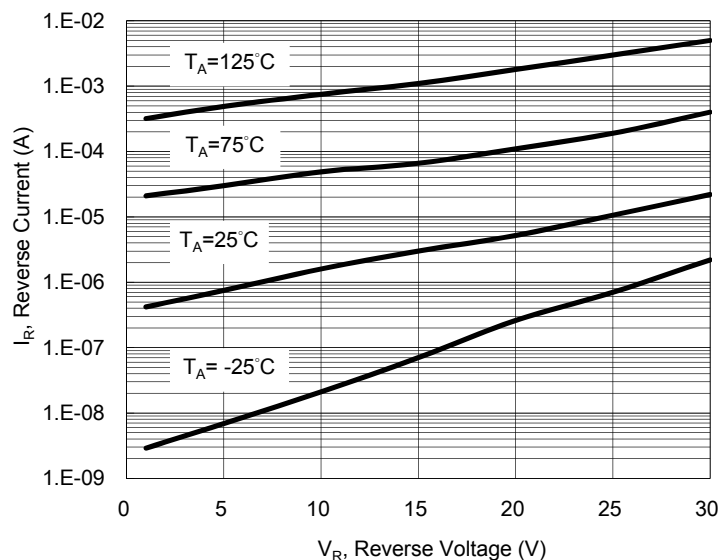
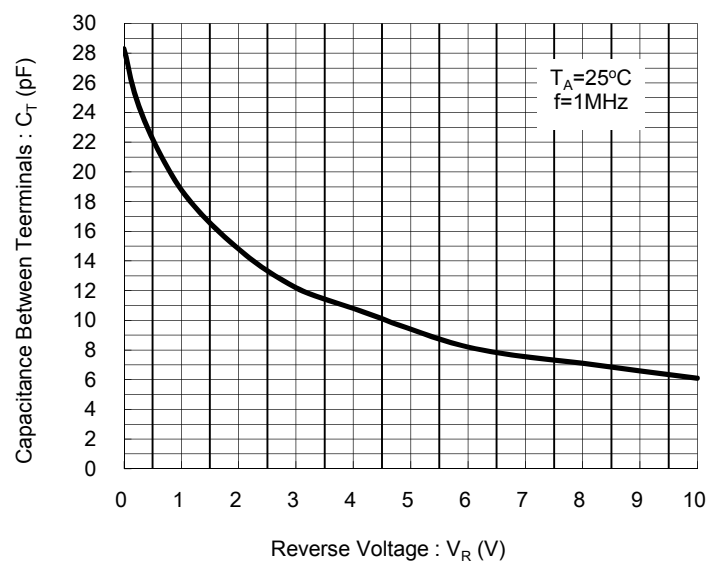


Fig. 3 Total Capacitance



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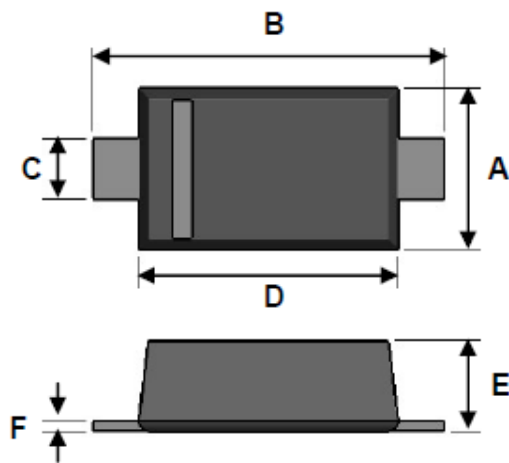
ORDERING INFORMATION						
PART NO.	PART NO. SUFFIX (Note 1)	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING	MARKING
RB521S-30	-xx	RK	G	SOD-523F	3K / 7" Reel	C

Note 1: Part No. Suffix „-xx “ would be used for special requirement

EXAMPLE					
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
RB521S-30 RKG	RB521S-30		RK	G	Multiple manufacture source Green compound
RB521S-30-L0 RKG	RB521S-30	L0	RK	G	Define manufacture source Green compound

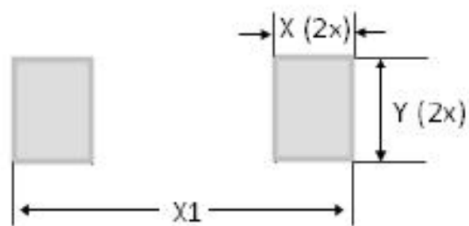
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PACKAGE OUTLINE DIMENSIONS
SOD-523F



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

SUGGEST 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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