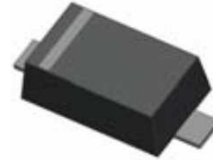


Small Signal Product

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
- Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code



MECHANICAL DATA

- Case: 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 ± 0.5 mg
- Marking code: B

SOD-523F



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNIT
Power Dissipation	P_D	200	mW
Repetitive Peak Reverse Voltage	V_{RRM}	30	V
Reverse Voltage	V_R	30	V
Mean Forward Current @ $T_L=100^\circ\text{C}$ (Lead	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	$^\circ\text{C}/\text{W}$
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 (JEDEC method)

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	-		0.6	$I_F = 200 \text{ mA}$	V
Reverse Leakage Current	I_R	-		1	$V_R = 10 \text{ V}$	μA

Small Signal Product

RATINGS AND CHARACTERISTICS CURVES (RB520S-30)

(TA=25°C unless otherwise noted)

Fig. 1 Total Capacitance

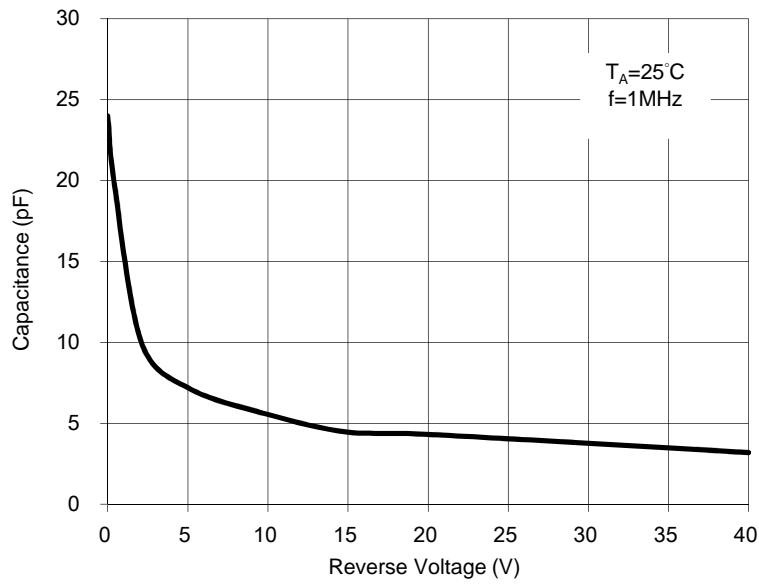


Fig. 2 Forward Voltage VS. Ambient

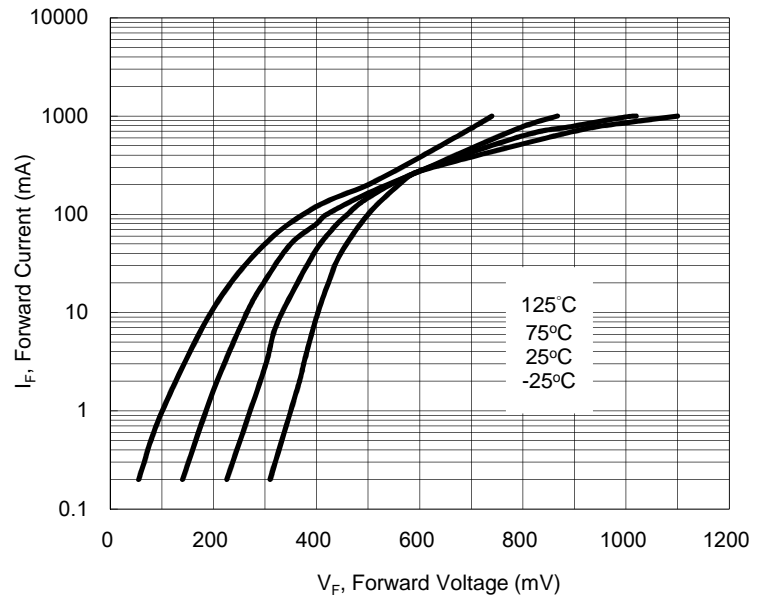
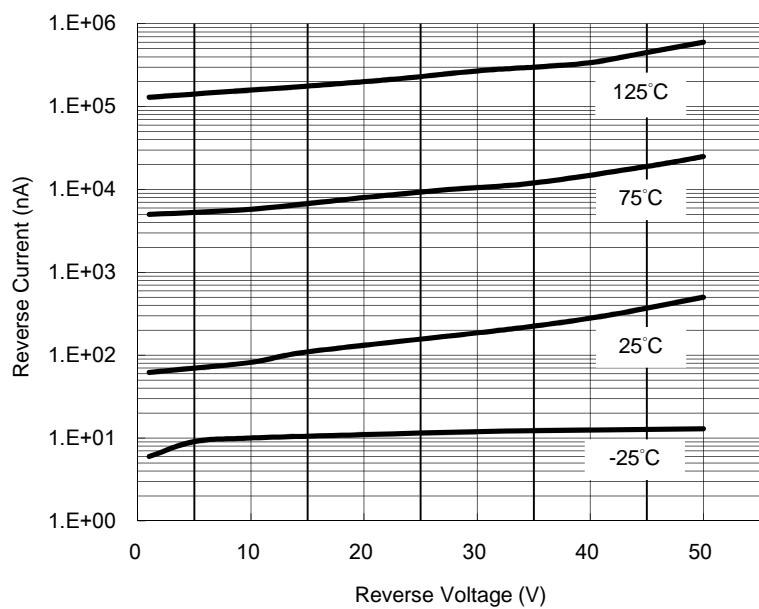


Fig. 2 Forward Voltage VS. Ambient VS. Reverse Voltage



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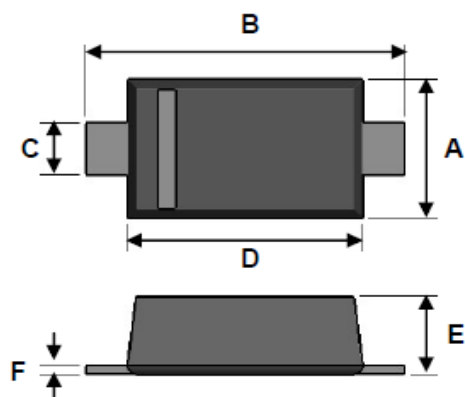
ORDERING INFORMATION						
PART NO.	MANUFACTURE CODE (Note)	PACKING CODE	GREEN COMPOUND	PACKAGE	PACKING	MARKING
RB520S-30		RK	G	SOD-523F	3K / 7" Reel	B
RB520S-30		RS	G	SOD-523F	8K / 7" Reel	B

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

EXAMPLE					
PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
RB520S-30 RKG	RB520S-30		RK	G	Green compound
RB520S-30-L0 RKG	RB520S-30	L0	RK	G	Green compound
RB520S-30-B0 RKG	RB520S-30	B0	RK	G	Green compound

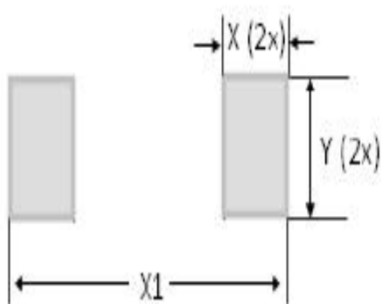
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DIMENSIONS
SOD-523F



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

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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