

Small Signal Product
200mW, Low V_F SMD Schottky Barrier Diode
FEATURES

- Fast switching device($t_{rr}<4.0nS$)
- Surface mount device type
- Moisture sensitivity level 1
- Pb free and RoHS compliant
- Matte Tin(Sn) lead finish with Nickel(Ni) underplate
- Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code


SOD-323F
MECHANICAL DATA

- Case: Flat lead SOD-323 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

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

PARAMETER	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}	30	V
Mean Forward Current	I_O	500	mA
Non-Repetitive Peak Forward Surge Current @ $t=8.3ms$	I_{FSM}	5	A
Power Dissipation	P_D	200	mW
Thermal Resistance form Junction to Ambient	R_{thJA}	426	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	- 65 to + 125	$^\circ\text{C}$

PARAMETER	TEST CONDITION	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	at $I_R = 500\mu\text{A}$	$V_{(BR)}$	30		V
Reverse Leakage Current	at $V_R = 15\text{ V}$	I_R	--	80	μA
	at $V_R = 20\text{ V}$		--	100	
	at $V_R = 30\text{ V}$		--	500	
Forward Voltage	at $I_F = 100\text{mA}$	V_F		0.36	V
	at $I_F = 500\text{mA}$			0.47	
Junction Capacitance	$V_R=0, f=1.0\text{MHz}$	C_J	--	58	pF

Small Signal Product

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

Fig. 1 Typical Forward Characteristics

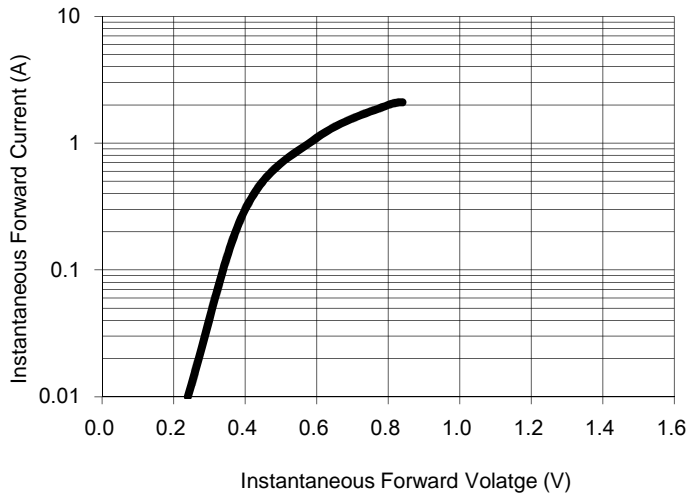


Fig. 2 Forward Current Derating Curve

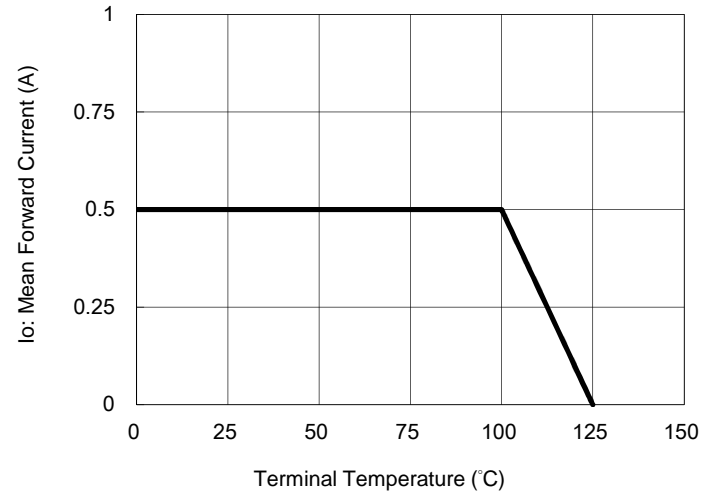


Fig. 3 Admissible Power Dissipation Curve

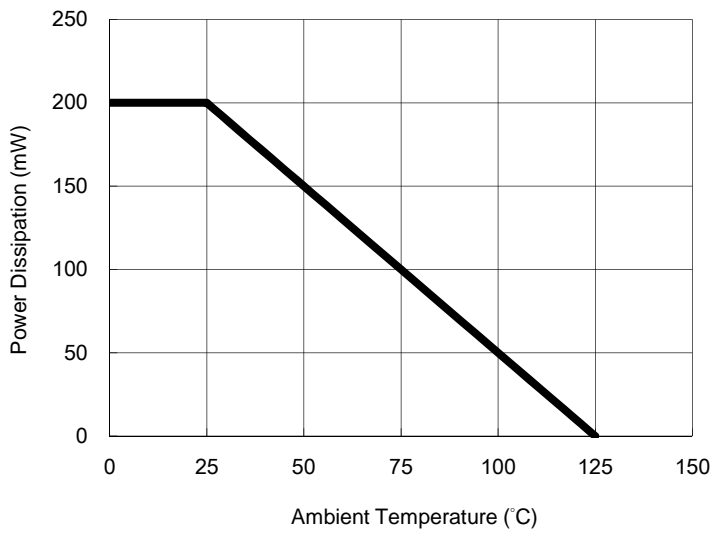


Fig. 4 Typical Junction Capacitance

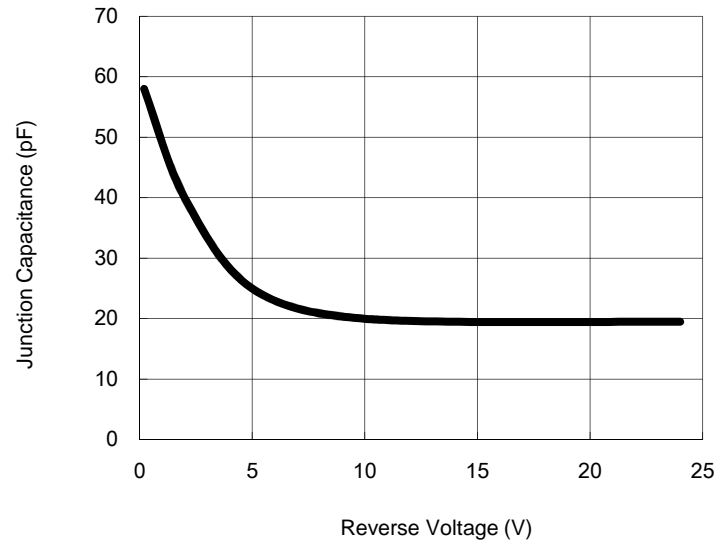
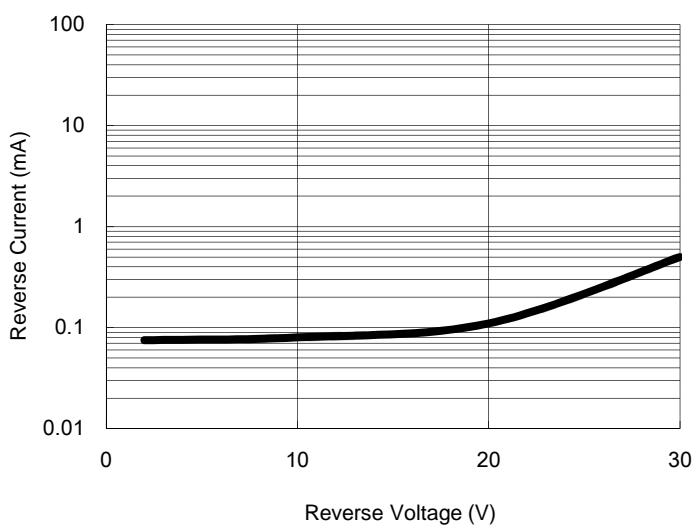


Fig. 5 Typical Reverse Characteristics



Small Signal Product
ORDERING INFORMATION

PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING	MARKING
B0530WS	(Note)	RR	G	SOD-323F	3K / 7" Reel	B3

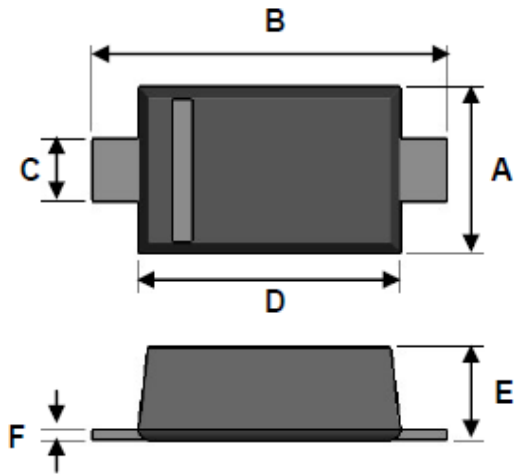
Note: Manufacture special control, if empty means no special control requirement.

EXAMPLE

PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
B0530WS RRG	B0530WS		RR	G	Green compound
B0530WS-L0 RRG	B0530WS	L0	RR	G	Green compound

Small Signal Product

DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.15	1.35	0.045	0.053
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	0.25	0.002	0.010

Small Signal Product**Notice**

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.