Small Signal Product

Low VF SMD Schottky Barrier Diode

FEATURES

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

SOD-123

Pb-Free

RoHS COMPLIANT

MECHANICAL DATA

- Case: Bend lead SOD-123 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: 0.01 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted)					
PARAMETER	SYMBOL	B0520LW	B0530W	B0540W	UNIT
Power Dissipation	P_D	410			mW
Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	V
Reverse Voltage	V_R	14	21	28	V
Mean Forward Current @ T_L=100°C (Lead Temperature)	I_O	500			mA
Non-Repetitive Peak Forward Surge Current (Note 1)	I_{FSM}	5.5			A
Thermal Resistance (Junction to Ambient) (Note 2)	$R_{\theta JA}$	244			°C/W
Junction and Storage Temperature Range	T_J , T_{STG}	-55 to +125			°C

Notes: 1. Test Condition: 8.3ms single half sine-wave superimposed on rated load

Notes: 2. Valid provided that electrodes are kept at ambient temperature

PARAMETER			SYMBOL	B0520LW	B0530W	B0540W	UNIT
Reverse Breakdown Voltage (Minimum Value)	I_R=250μA		$V_{(BR)}$	20	-	-	V
	I_R=130μA			-	30	-	
	I_R=20μA			-	-	40	
Forward Voltage (Maximum Value)	I_F=100mA	T_J = 25°C	V_F	0.300	0.375	-	V
	I_F=500mA			0.385	0.430	0.510	
	I_F=1000mA			-	-	0.620	
Reverse Leakage Current (Maximum Value)	V_R = 10V	T_J = 25°C	I_R	75	-	-	μA
	V_R = 15V			-	20	-	
	V_R = 20V			250	-	10	
	V_R = 30V			-	130	-	
	V_R = 40V			-	-	20	
Junction Capacitance	V_R = 0 V	f=1.0MHz	C_J	170			pF

RATINGS AND CHARACTERISTICS CURVES

(T_A=25℃ unless otherwise noted)

Fig.1 Typical Forward Characteristics

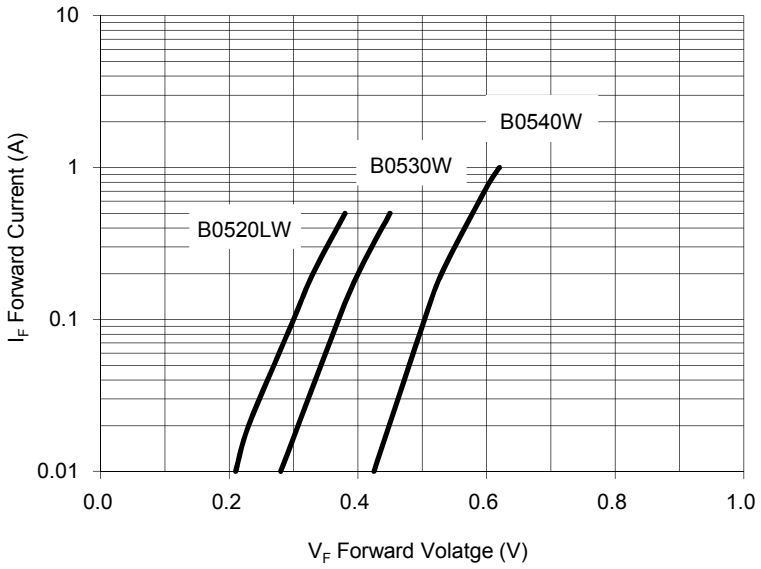


Fig. 2 Forward Current Derating Curve

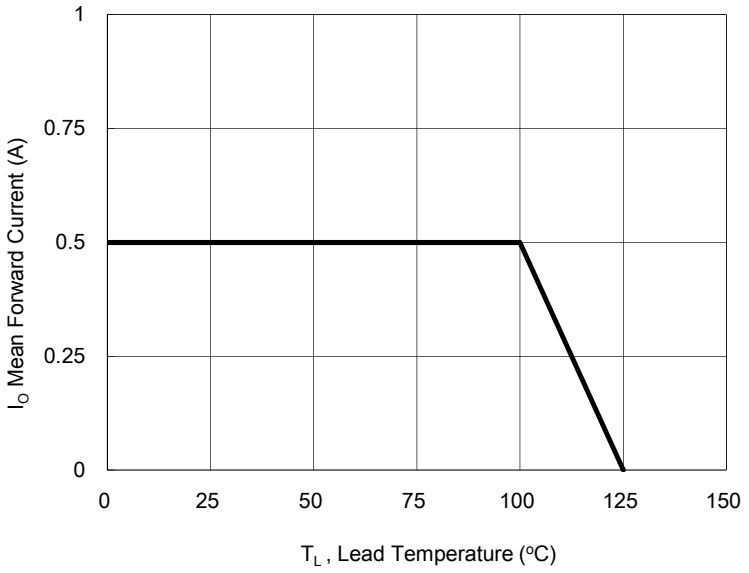


Fig. 3 Admissible Power Dissipation Curve

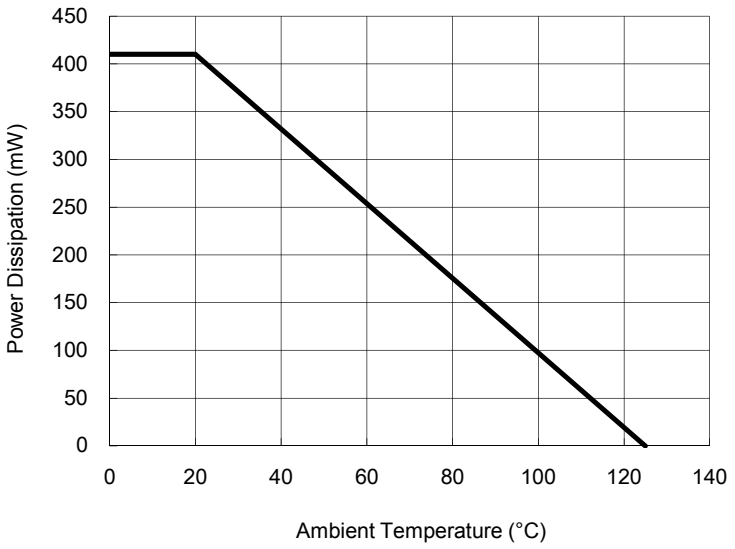
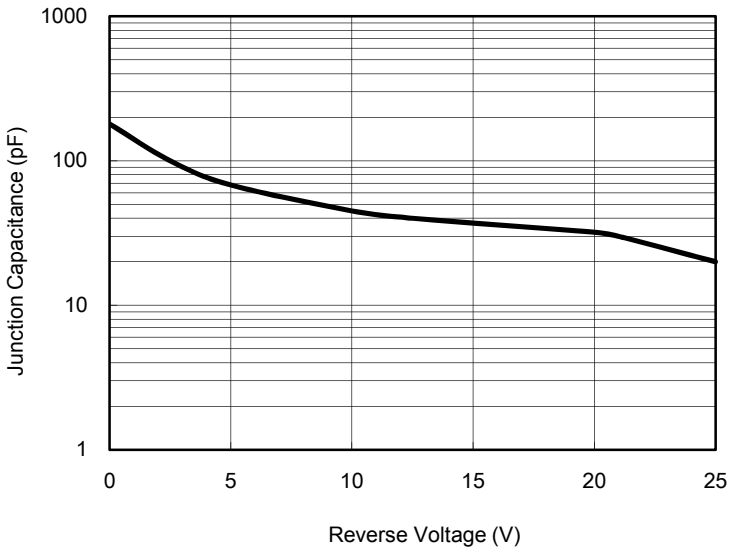


Fig. 4 Typical Junction Capacitance



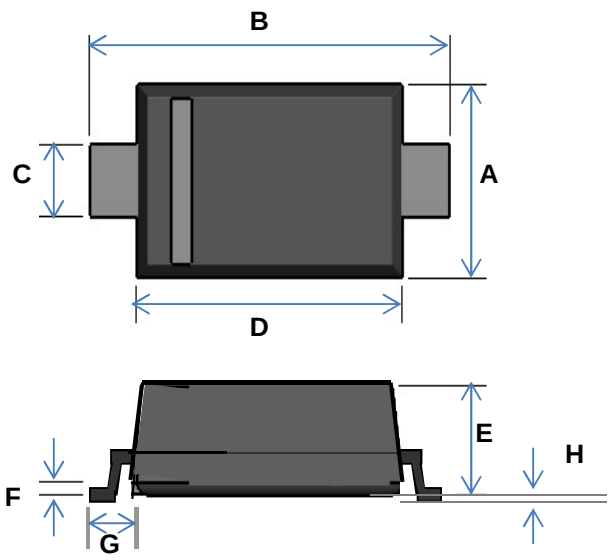
ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX (Note 2)	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
B05xxx (Note 1)	-xx	RF	G	SOD-123	3K / 7" Reel

Note 1: "xxx" defines voltage from 20V (B0520LW) to 40V (B0540W)

Note 2: Part No. Suffix „-xx “ would be used for special requirement

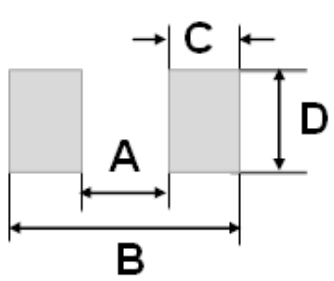
EXAMPLE					
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
B0540W RF	B0540W		RF		Multiple manufacture source
B0540W RFG	B0540W		RF	G	Multiple manufacture source Green compound
B0540W-D0 RFG	B0540W	-D0	RF	G	Define manufacture source Green compound

PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.40	1.80	0.055	0.071
B	3.55	3.85	0.140	0.152
C	0.45	0.70	0.018	0.028
D	2.55	2.85	0.100	0.112
E	0.95	1.35	0.037	0.053
F	0.05	0.15	0.002	0.006
G	0.50 REF		0.02 REF	
H	-	0.10	-	0.004

SUGGEST PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
A	2.36	0.093
B	4.19	0.165
C	0.91	0.036
D	1.22	0.048

MARKING

Part No.	Marking
B0520LW	SD
B0530W	SE
B0540W	SF

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 or 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 seling 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.

Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:
moschip.ru
moschip.ru_4
moschip.ru_6
moschip.ru_9