

Low VF SMD Schottky Barrier Diode

FEATURES

- Surface device type mounting
- Moisture sensitivity level 1
- Packing code with suffix "G" means green compound (halogen-free)







MECHANICAL DATA

- Case: Flat 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: 8.85 ± 0.5 mg





MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)					
PARAMETER		B0520LWF	B0530WF	B0540WF	UNIT
Repetitive Peak Reverse Voltage		20	30	40	V
Reverse Voltage	V_R	20	30	40	V
Mean Forward Current @ T _L =100°C (Lead Temperature)	I _O	500 mA		mA	
Non-Repetitive Peak Forward Surge Current (Note 1)	I _{FSM}	5.5		Α	
Thermal Resistance (Junction to Lead)	$R_{\theta JL}$	150 118		°C/W	
Thermal Resistance (Junction to Ambient) (Note 2)	$R_{\theta JA}$	340 206		C/VV	
Junction and Storage Temperature Range	T_J, T_{STG}	T _J , T _{STG} -65 to +125 -65 to +150		-65 to +150	°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

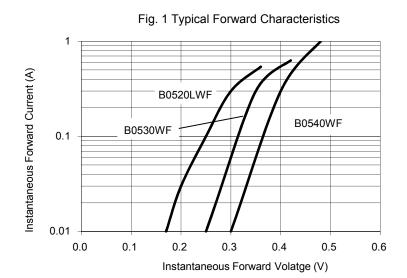
PARAMETER		SYMBOL	B0520LWF	B0530WF	B0540WF	UNIT
Forward Voltage I _F = 0.1 A			0.300	0.375	-	
	I _F = 0.5 A		0.385	0.500	0.510	V
	I _F = 1.0 A	V	-	-	0.620	
	I _F = 0.1 A , Ta = 100°C	V_{F}	0.220	-	-	
	I _F = 0.5 A , Ta = 100°C		0.330	-	0.460	
	I _F = 1.0 A , Ta = 100°C		-	-	0.610	
Reverse Leakage Current	V _R = 10V		75	-	-	μΑ
	V _R = 20V		250	-	10	
	V _R = 10V , Ta = 100°C		5	-	-	mA
	V _R = 20V , Ta = 100°C		8	-	5	
	V _R = 15V	I _R	-	20	-	μΑ
	V _R = 30V		-	130	-	
	V _R = 40V		-	-	20	
	$V_R = 40V$, $Ta = 100^{\circ}C$		-	-	13	mA

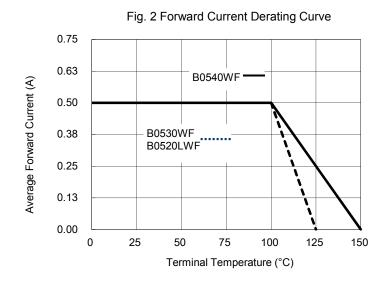
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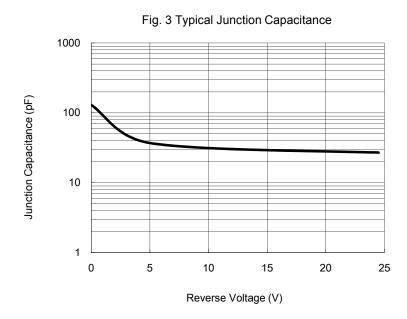


RATINGS AND CHARACTERISTICS CURVES

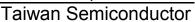
(TA=25°C unless otherwise noted)







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ORDERING	ORDERING INFORMATION				
PART NO.	PART NO. SUFFIX (Note 2)	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
B05xxxF (Note 1)	-xx	RH	G	SOD-123F	3K / 7" Reel

Note 1: "xxx" defines voltage from 20V (B0520LWF) to 40V (B0540WF) $\,$

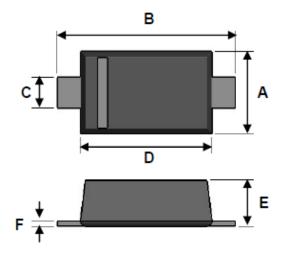
Note 2: Part No. Suffix "-xx " would be used for special requirement

EXAMPLE					
PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
B0540WF RH	B0540WF		RH		Multiple manufacture source
B0540WF RHG	B0540WF		RH	G	Multiple manufacture source Green compound
B0540WF-B0 RHG	B0540WF	-B0	RH	G	Define manufacture source Green compound

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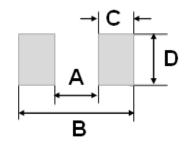


PACKAGE OUTLINE DIMENSIONS



DIM.	Unit	(mm)	Unit (inch)		
DIN.	Min	Max	Min	Max	
Α	1.50	1.70	0.059	0.067	
В	3.30	3.90	0.130	0.154	
С	0.50	0.70	0.020	0.028	
D	2.50	2.70	0.098	0.106	
Е	0.80	1.15	0.031	0.045	
F	0.05	0.20	0.002	0.008	

SUGGEST PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)		
DIIVI.	Тур.	Тур.		
Α	2.36	0.093		
В	4.19	0.165		
С	0.91	0.036		
D	1.22	0.048		

MARKING

Part No.	Marking
B0520LWF	SD
B0530WF	SE
B0540WF	SQ



Taiwan Semiconductor

Small Signal Product

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