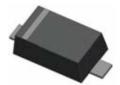


# 200mW, Low V<sub>F</sub> SMD Schottky Barrier Diode

#### **FEATURES**

- Low power loss, high current capability, low V<sub>F</sub>
- 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





#### **SOD-523F**

# ROHS

Version: B14

#### **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 mgMarking code: B

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)					
PARAMETER	SYMBOL	LIMIT	UNIT		
Power Dissipation	P <sub>D</sub>	200	mW		
Repetitive Peak Reverse Voltage	$V_{RRM}$	30	V		
Reverse Voltage	$V_R$	30	V		
Mean Forward Current @ T <sub>L</sub> =100°C (Lead	I <sub>O</sub>	200	mA		
Non-Repetitive Peak Forward Surge Current (Note 1)	I <sub>FSM</sub>	1	А		
Thermal Resistance (Junction to Ambient)	RθJA	500	°C/W		
Junction and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +125	°C		

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

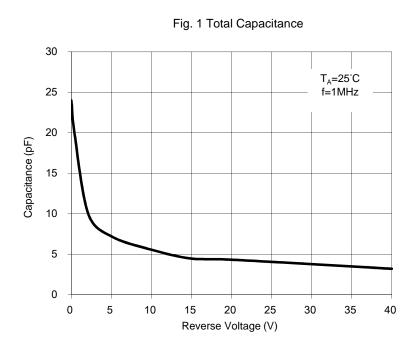
PARAMETER	SYMBOL	MIN	TYP	MAX	TEST CONDITION	UNIT
Reverse Breakdown Voltage	$V_{(BR)}$	30		-	I <sub>R</sub> = 500 μA	V
Forward Voltage	$V_{F}$	-		0.6	$I_F = 200 \text{ mA}$	V
Reverse Leakage Current	I <sub>R</sub>	-		1	V <sub>R</sub> = 10 V	μΑ

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#### **RATINGS AND CHARACTERISTICS CURVES (RB520S-30)**

(TA=25°C unless otherwise noted)



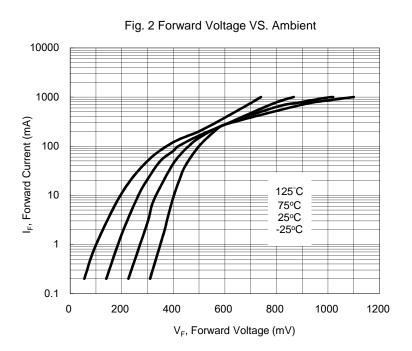
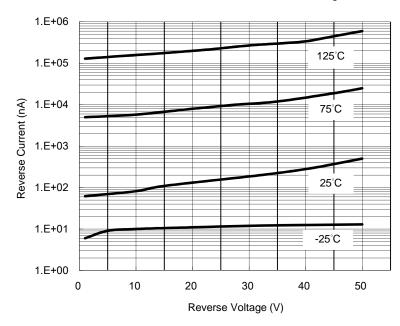


Fig. 2 Forward Voltage VS. Ambient VS. Reverse Voltage





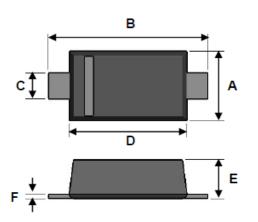
ORDERING INFORMATION						
PART NO.	MANUFACTURE CODE (Note)	PACKING CODE	GREEN COMPOUND	PACKAGE	PACKING	MARKING
RB520S-30		RK	G	SOD-523F	3K / 7" Reel	В
RB520S-30		RS	G	SOD-523F	8K / 7" Reel	В

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	В0	RK	G	Green compound

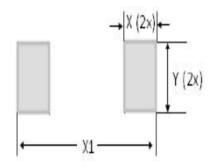


## DIMENSIONS SOD-523F



DIM.	Unit	(mm)	Unit (inch)		
DIIVI.	Min	Max	Min	Max	
Α	0.70	0.90	0.028	0.035	
В	1.50	1.70	0.059	0.067	
С	0.25	0.40	0.010	0.016	
D	1.10	1.30	0.043	0.051	
Е	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)	
DIIVI.	Тур.	Тур.	
Х	0.60	0.024	
X1	2.30	0.091	
<b>Y</b>	0.80	0.031	





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