200mA, 30V Low VF SMD Schottky Barrier Diode

FEATURES

- Low capacitance
- Low forward voltage drop
- Moisture sensitivity level: level 1, per J-STD-020
- Compliant to RoHS directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21

APPLICATIONS

- Adapters
- For switching power supply
- Low stored charge
- Inverter

MECHANICAL DATA

- Case: SOD-523F
- Molding compound meets UL 94 V-0 flammability rating
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Meet JESD 201 class 1A whisker test
- Polarity: Indicated by cathode band
- Weight: 1.68 ± 0.5 mg

KEY PARAMETERS		
PARAMETER	**VALUE**	**UNIT**
I_F	200	mA
V_{RRM}	30	V
I_{FSM}	1	A
V_F at I_F=200mA	0.5	V
T_J Max.	125	°C
Package	SOD-523F	
Configuration	Single die	

Pb-Free RoHS COMPLIANT

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)			
PARAMETER	**SYMBOL**	**RB521S-30**	**UNIT**
Marking code on the device		C	
Power dissipation	P_D	200	mW
Repetitive peak reverse voltage	V_{RRM}	30	V
Forward current	I_F	200	mA
Non-repetitive peak forward surge current @ t = 8.3ms	I_{FSM}	1	A
Junction temperature range	T_J	-55 to +125	°C
Storage temperature range	T_{STG}	-55 to +125	°C

THERMAL PERFORMANCE			
PARAMETER	**SYMBOL**	**TYP**	**UNIT**
Junction-to-ambient thermal resistance	$R_{\Theta JA}$	500	°C/W

ELECTRICAL SPECIFICATIONS (T_A = 25°C unless otherwise noted)					
PARAMETER	**CONDITIONS**	**SYMBOL**	**MIN**	**MAX**	**UNIT**
Forward voltage per diode (1)	I_F = 200mA, T_J = 25°C	V_F	-	0.5	V
Reverse breakdown voltage	I_R = 500 μA, T_J = 25°C	$V_{(BR)}$	30	-	V
Reverse leakage current (2)	V_R=10V, T_J = 25°C	I_R	-	30	μA

Notes:

1. Pulse test with PW=0.3 ms
2. Pulse test with PW=30 ms

ORDERING INFORMATION		
PART NO.	**PACKAGE**	**PACKING**
RB521S-30 RKG	SOD-523F	3K / 7" Reel
RB521S-30 RK	SOD-523F	3K / 7" Reel

CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

Fig. 1 Forward Characteristics

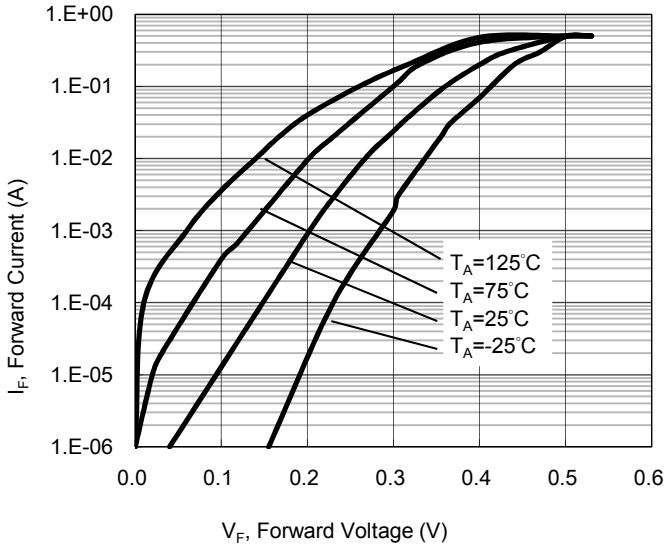


Fig. 2 Reverse Characteristics

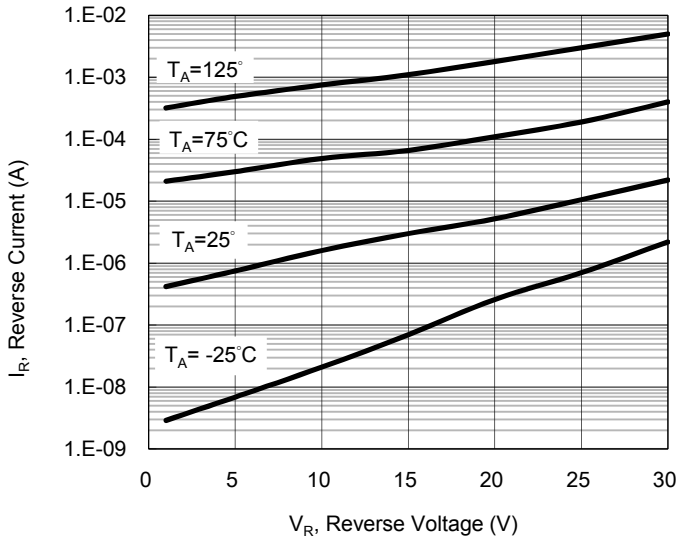
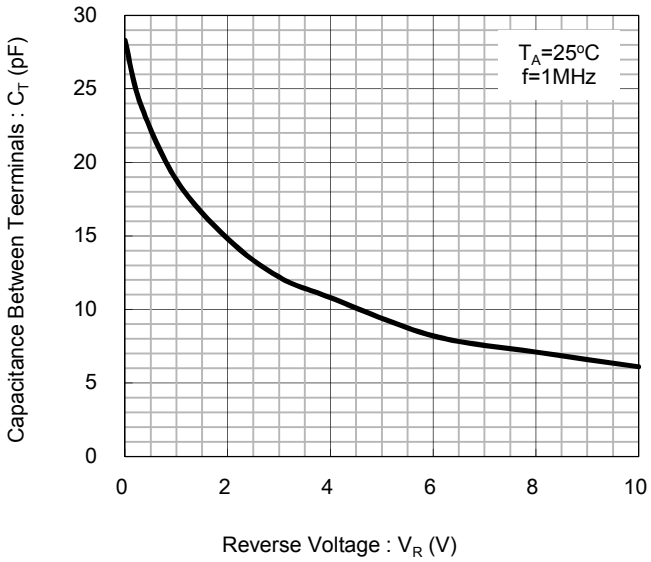
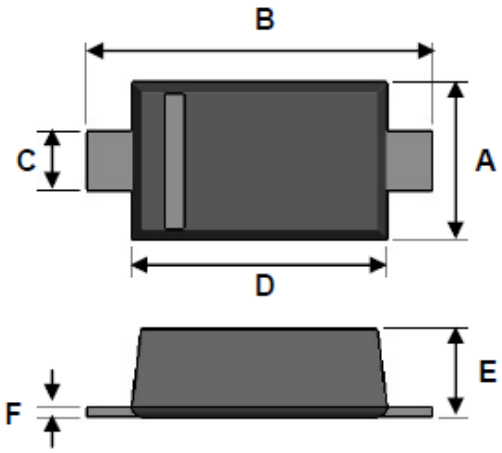


Fig. 3 Total Capacitance



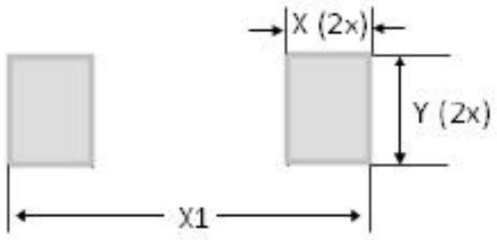
PACKAGE OUTLINE DIMENSION

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

SUGGEST 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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