30mA, 40V Schottky Barrier Diode

FEATURES

- Low reverse current
- Surface mount device type
- Moisture sensitivity level: level 1, per J-STD-020
- RoHS Compliant
- 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: 1.60 mg (approximately)

KEY PARAMETERS		
PARAMETER	**VALUE**	**UNIT**
I_F	30	mA
V_{RRM}	40	V
V_F at I_F = 1mA	0.37	V
$T_{J\ MAX}$	125	°C
Package	SOD-523F	
Configuration	Single die	

Pb-Free RoHS COMPLIANT HALOGEN FREE

SOD-523F

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)			
PARAMETER	**SYMBOL**	**RB751M5-40**	**UNIT**
Marking code on the device		5	
Repetitive peak reverse voltage	V_{RRM}	40	V
DC block voltage	V_R	30	V
Forward current	I_F	30	mA
Non-repetitive peak forward surge current @ t = 8.3ms	I_{FSM}	0.2	A
Power dissipation	P_D	200	mW
Junction temperature range	T_J	-55 to +125	°C
Storage temperature range	T_{STG}	-55 to +125	°C

ELECTRICAL SPECIFICATIONS (T_A = 25°C unless otherwise noted)					
PARAMETER	**CONDITIONS**	**SYMBOL**	**TYP**	**MAX**	**UNIT**
Forward voltage[1]	I_F = 1mA, T_J = 25°C	V_F	-	0.37	V
Reverse current[2]	V_R = 30V, T_J = 25°C	I_R	-	0.50	μA
Capacitance	V_R = 1V, f = 1MHz	C	2	-	pF

Notes:

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

ORDERING INFORMATION		
ORDERING CODE	**PACKAGE**	**PACKING**
RB751M5-40 RSG	SOD-523F	8K / 7" Reel

CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

Fig.1 Typical Forward Characteristics

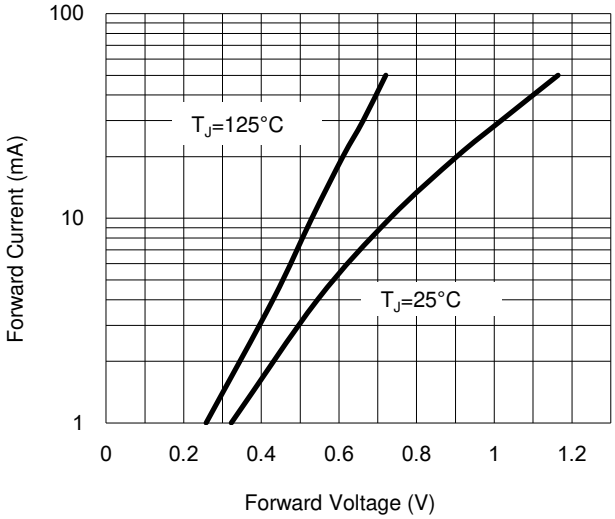


Fig.2 Typical Reverse Characteristics

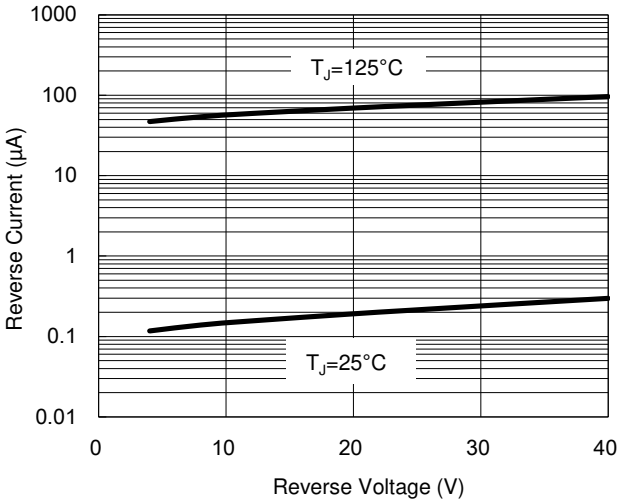


Fig.3 Typical Capacitance Characteristics

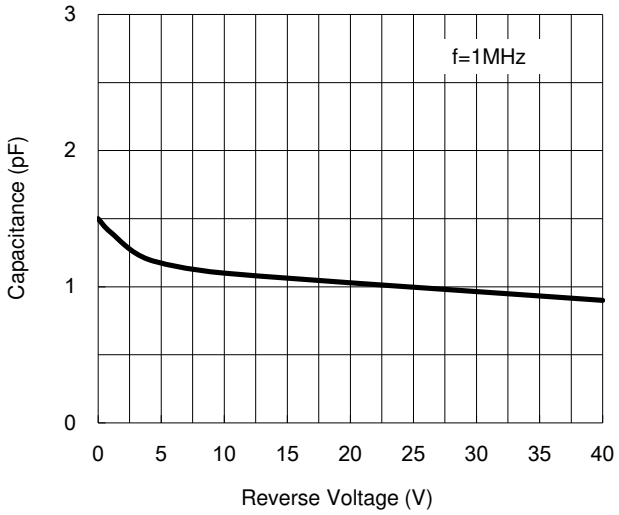
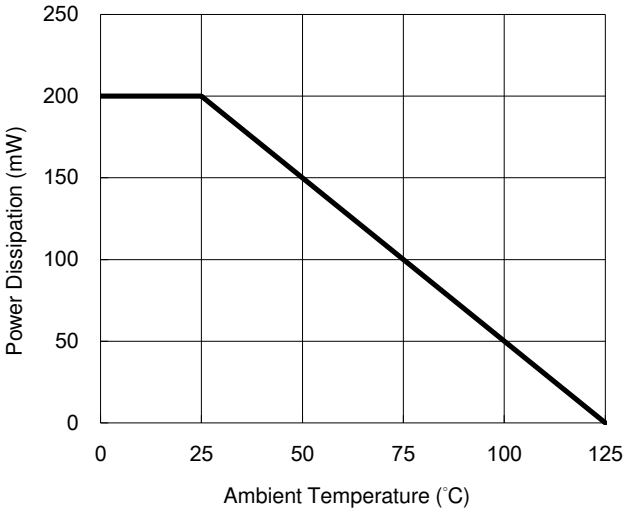
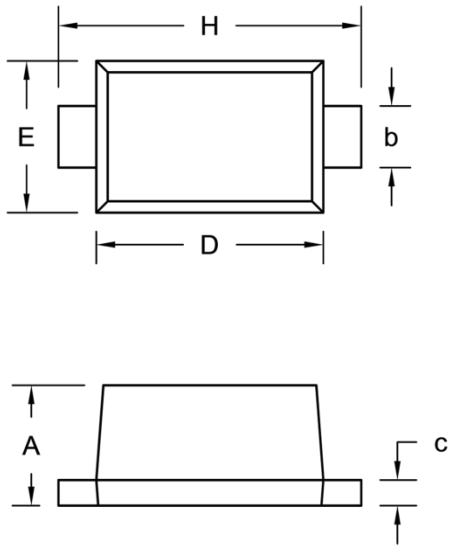


Fig.4 Power Derating Curve



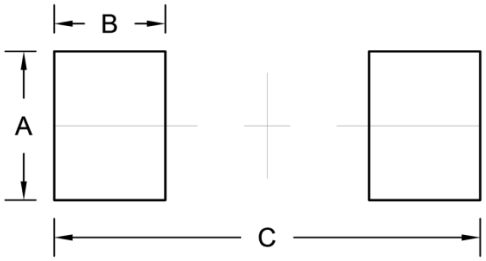
PACKAGE OUTLINE DIMENSION

SOD-523F



DIM.	Unit (mm)		Unit (inch)	
	Min.	Max.	Min.	Max.
A	0.50	0.77	0.020	0.030
b	0.25	0.40	0.010	0.016
c	0.07	0.20	0.003	0.008
D	1.10	1.30	0.043	0.051
E	0.70	0.90	0.028	0.035
H	1.50	1.70	0.059	0.067

SUGGEST PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	0.80	0.031
B	0.60	0.024
C	2.30	0.091

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