200mA, 40V Schottky Barrier Diode

FEATURES

- Low current rectification
- Low reverse current
- Surface mount device type
- Moisture sensitivity level: level 1, per J-STD-020
- RoHS Compliant
- Halogen-free

KEY PARAMETERS		
PARAMETER	**VALUE**	**UNIT**
I_F	200	mA
V_{RRM}	40	V
V_F at I_F=100mA	0.55	V
$T_{J\ MAX}$	125	°C

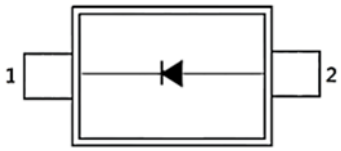
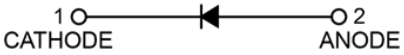
APPLICATIONS

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

Pb-Free RoHS COMPLIANT HALOGEN FREE

MECHANICAL DATA

- Case: SOD-523F
- Molding compound meets UL 94V-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)

PACKAGE: SOD-523F	PIN CONFIGURATION	CIRCUIT DIAGRAM
		

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)			
PARAMETER	**SYMBOL**	**VALUE**	**UNIT**
Power dissipation	P_D	200	mW
Repetitive peak reverse voltage	V_{RRM}	40	V
Non-repetitive peak reverse voltage	V_{RM}	40	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

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ELECTRICAL SPECIFICATIONS (T_A = 25°C unless otherwise noted)					
PARAMETER	**CONDITIONS**	**SYMBOL**	**MIN**	**MAX**	**UNIT**
Forward voltage (1)	I_F = 10mA, T_J = 25°C	V_F	-	0.39	V
	I_F = 100mA, T_J = 25°C			0.55	
Reverse voltage (2)	I_R = 100μA, T_J = 25°C	V_R	40	-	V
Reverse current (2)	V_R = 10V, T_J = 25°C	I_R	-	1	μA
	V_R = 40V, T_J = 25°C		-	10	

Notes:

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

ORDERING INFORMATION		
ORDERING CODE	**PACKAGE**	**PACKING**
RB520SM5-40 RSG	SOD-523F	8K / 7" Reel

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CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

Fig.1 Typical Forward Characteristics

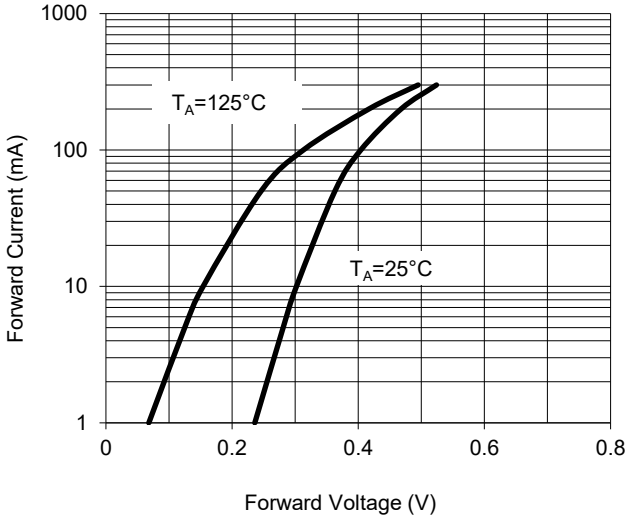


Fig.2 Typical Reverse Characteristics

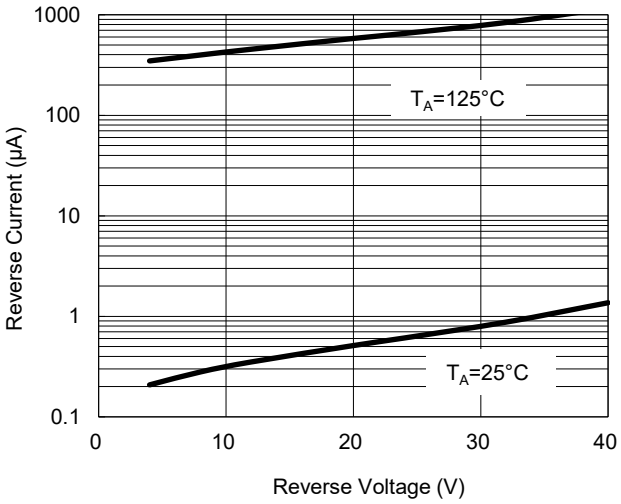


Fig.3 Typical Capacitance Characteristics

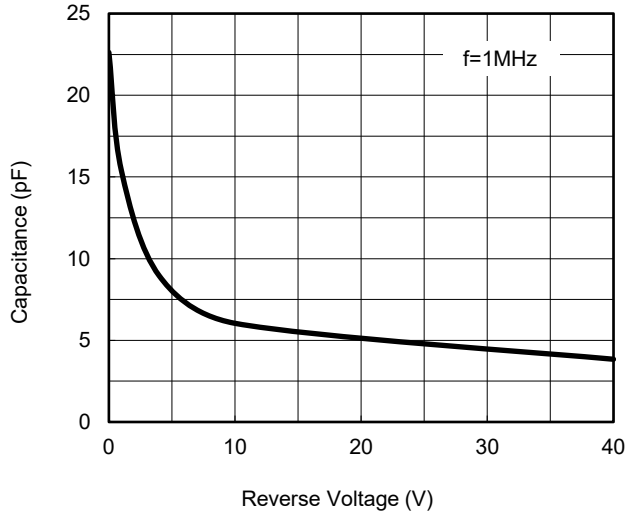
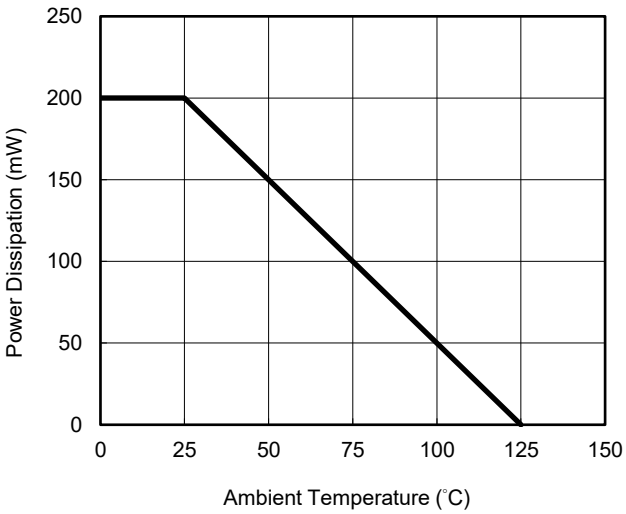


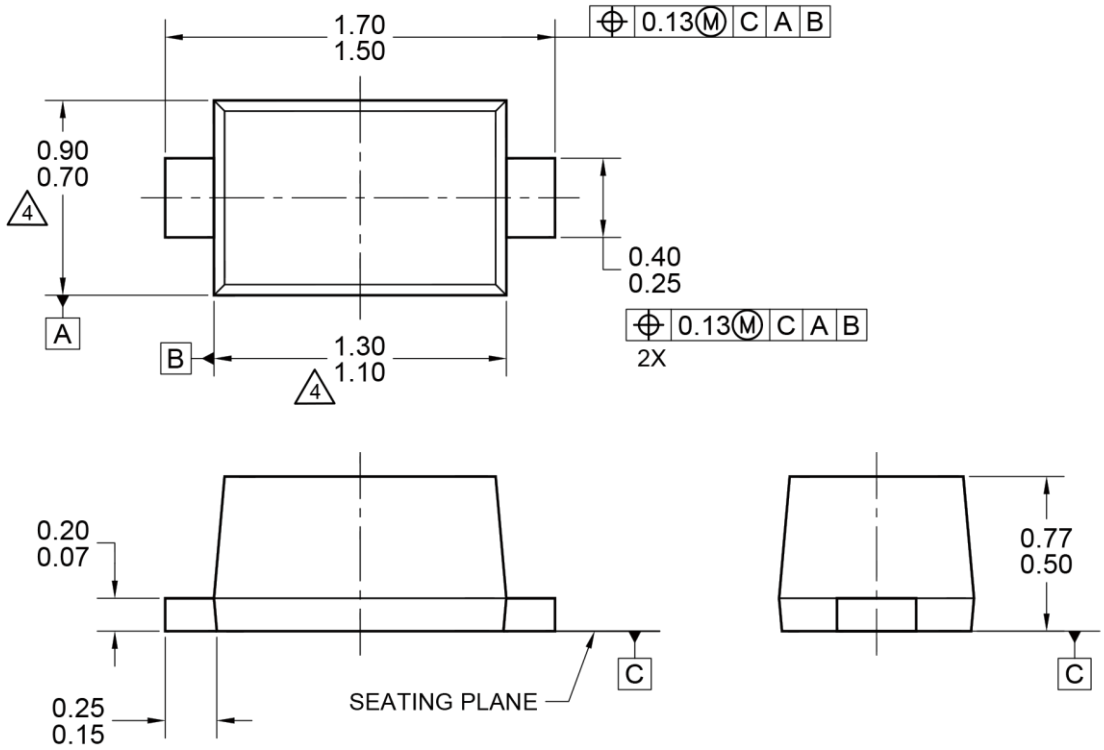
Fig.4 Power Derating Curve

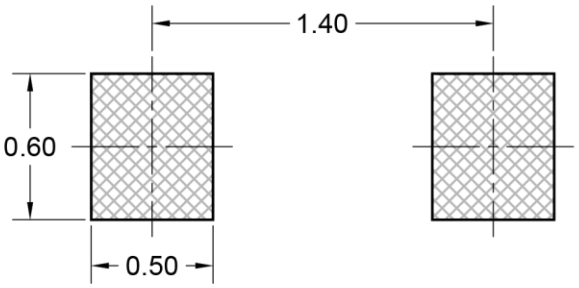


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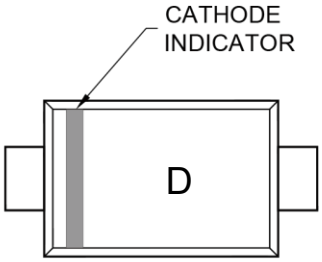
PACKAGE OUTLINE DIMENSION

SOD-523F





SUGGESTED PAD LAYOUT



MARKING DIAGRAM

D = Device marking

NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
3. PACKAGE OUTLINE REFERENCE: EIAJ ED-7500A, SC-79.
4. MOLDED PLASTIC BODY LATERAL DIMENSIONS DO NOT INCLUDE MOLD FLASH.
5. DWG NO. REF: HQ2SD07-SOD523F-047 REV A.

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