

350mA, 20V – 40V Schottky Barrier Diode

FEATURES

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

APPLICATIONS

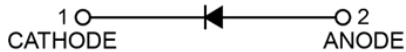
- Adapters
- For switching power supply
- Low stored charge
- Inverter

MECHANICAL DATA

- Case: SOD-323F
- 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: 3.4 mg (approximately)

KEY PARAMETERS		
PARAMETER	VALUE	UNIT
I_F	350	mA
V_{RRM}	20-40	V
V_F at $I_F=200mA$	0.6	V
$T_{J\ MAX}$	125	°C



PACKAGE: SOD-323F	PIN CONFIGURATION	CIRCUIT DIAGRAM
		

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise noted)				
PARAMETER		SYMBOL	VALUE	UNIT
Repetitive peak reverse voltage	SD103AM3	V_{RRM}	40	V
	SD103BM3		30	
	SD103CM3		20	
Power dissipation		P_D	200	mW
Forward current		I_F	350	mA
Non-repetitive peak forward surge current @ 8.3ms single half sine wave		I_{FSM}	2	A
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	MIN	TYP	MAX	UNIT
Forward voltage ⁽¹⁾		I _F =20mA, T _J =25°C	V _F	-	-	0.37	V
		I _F =200mA, T _J =25°C				0.60	
Reverse voltage ⁽²⁾	SD103AM3	I _R =100μA, T _J =25°C	V _R	40	-	-	V
	SD103BM3			30			
	SD103CM3			20			
Reverse current ⁽²⁾	SD103AM3	V _R =30V, T _J =25°C	I _R	-	-	5	μA
	SD103BM3	V _R =20V, T _J =25°C					
	SD103CM3	V _R =10V, T _J =25°C					
Capacitance		f=1MHz, V _R =0V	C	-	50	-	pF

Notes:

1. Pulse test with $PW=0.3\text{ ms}$
2. Pulse test with $PW=30\text{ ms}$

ORDERING INFORMATION			
ORDERING CODE	PACKAGE	PACKING	DEVICE MARKING
SD103AM3 RRG	SOD-323F	3K / 7" Reel	CA
SD103BM3 RRG	SOD-323F	3K / 7" Reel	CB
SD103CM3 RRG	SOD-323F	3K / 7" Reel	CC

CHARACTERISTICS CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig.1 Typical Forward Characteristics

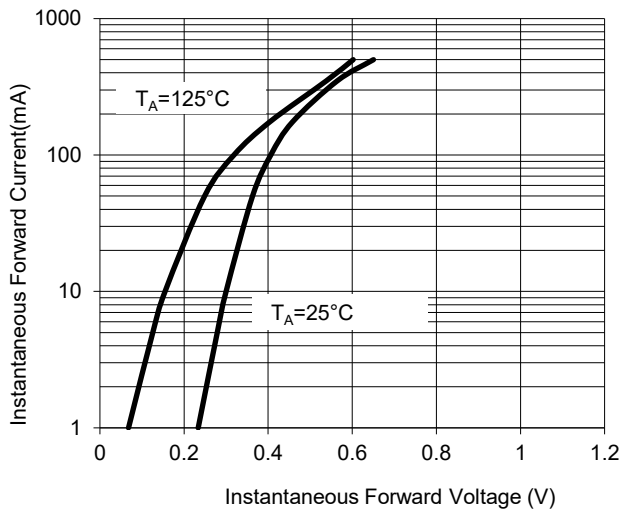


Fig.2 Typical Reverse Characteristics

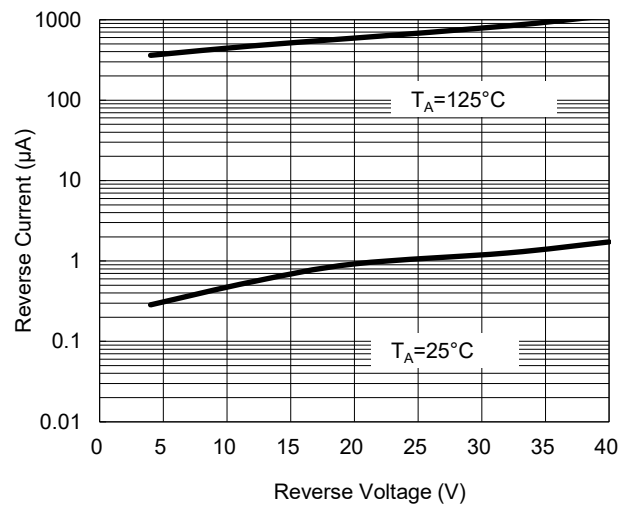


Fig.3 Typical Capacitance Characteristics

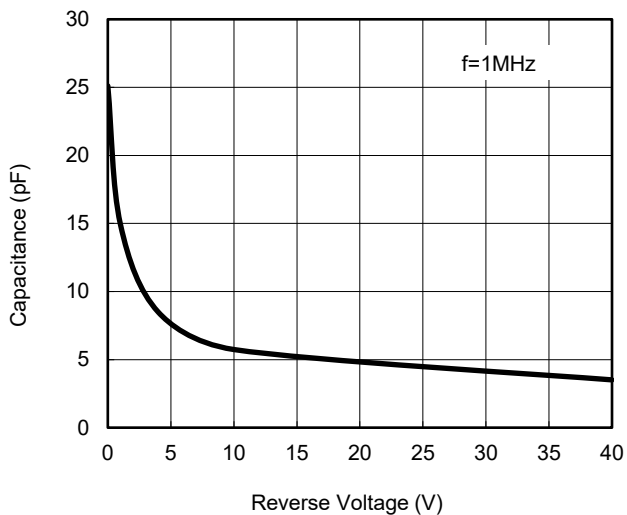
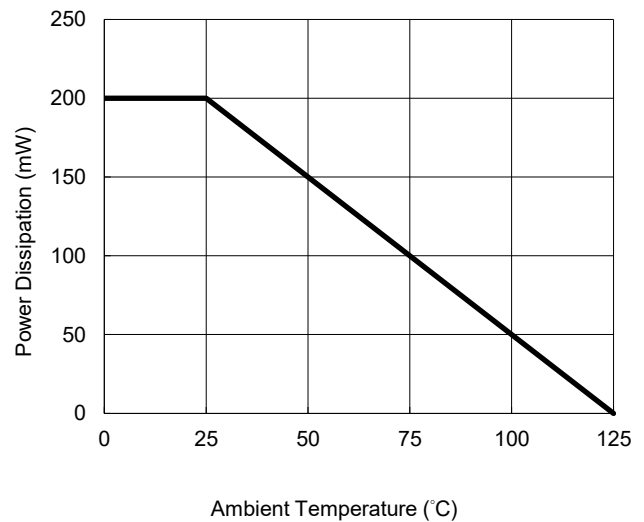
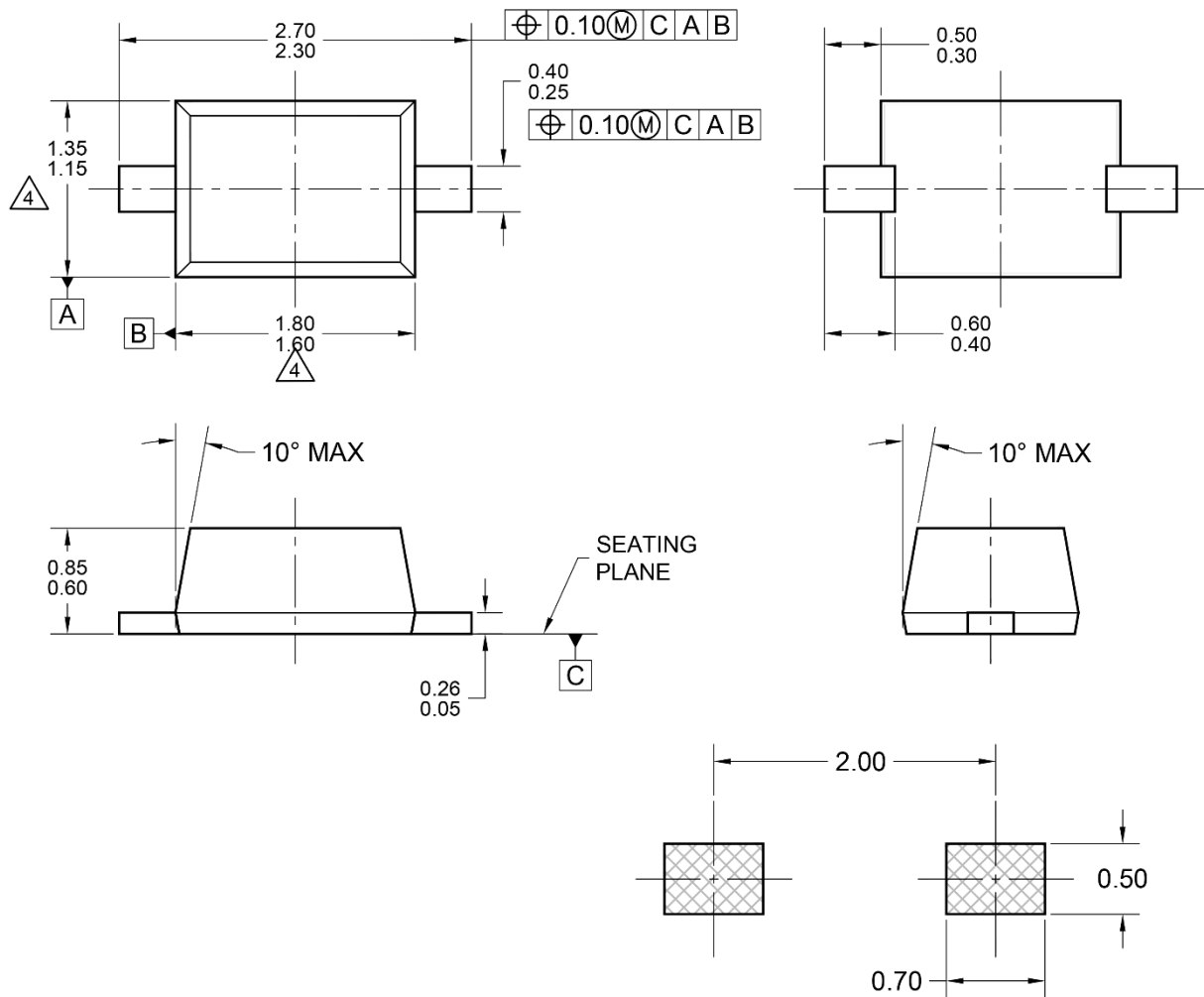


Fig.4 Power Derating Curve

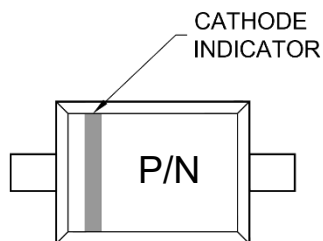


PACKAGE OUTLINE DIMENSION

SOD-323F



SUGGESTED PAD LAYOUT



MARKING DIAGRAM

P/N = 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-1, SC-90.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.
5. DWG NO. REF: HQ2SD07-SOD323F_A-156 REV A.

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