

100mA Low VF SMD Schottky Barrier Diode

FEATURES

- Low power loss, high current capability, low VF
- Surface mount device type
- RoHS Compliant
- Halogen-free

APPLICATIONS

- Small current rectification

MECHANICAL DATA

- Case: SOD-723F
- Molding compound meets UL 94V-0 flammability rating
- Moisture sensitivity level: level 1, per J-STD-020
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Meet JESD 201 class 1A whisker test
- Polarity: Indicated by cathode band
- Weight: $0.847 \pm 0.5\text{mg}$ (approximately)

KEY PARAMETERS		
PARAMETER	VALUE	UNIT
I_F	100	mA
V_{RRM}	30	V
I_{FSM}	500	mA
V_F at $I_F = 10\text{mA}$	0.45	V
$T_{J\text{ MAX}}$	125	°C
Package	SOD-723F	
Configuration	Single die	



SOD-723F



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

PARAMETER	SYMBOL	VALUE	UNIT
Power dissipation	P_D	150	mW
Repetitive peak reverse voltage	V_{RRM}	30	V
Reverse voltage	V_R	30	V
Forward current	I_F	100	mA
Non-repetitive peak forward surge current ($t = 8.3\text{ms}$)	I_{FSM}	500	mA
Junction temperature range	T_J	-40 to +125	°C
Storage temperature range	T_{STG}	-40 to +125	°C

THERMAL PERFORMANCE

PARAMETER	SYMBOL	TYP	UNIT
Junction-to-ambient thermal resistance	$R_{\theta JA}$	667	°C/W

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

PARAMETER	CONDITIONS	SYMBOL	MIN	MAX	UNIT
Forward voltage ⁽¹⁾	$I_F = 10\text{mA}$, $T_J = 25^\circ\text{C}$	V_F	-	0.45	V
Reverse current @ rated V_R ⁽²⁾	$V_R = 10\text{V}$, $T_J = 25^\circ\text{C}$	I_R	-	0.50	μA

Notes:

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

ORDERING INFORMATION

ORDERING CODE	PACKAGE	PACKING
RB520G-30 RLG	SOD-723F	5,000 / 7" Tape & Reel

CHARACTERISTICS CURVES

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

Fig.1 Power Dissipation Curve

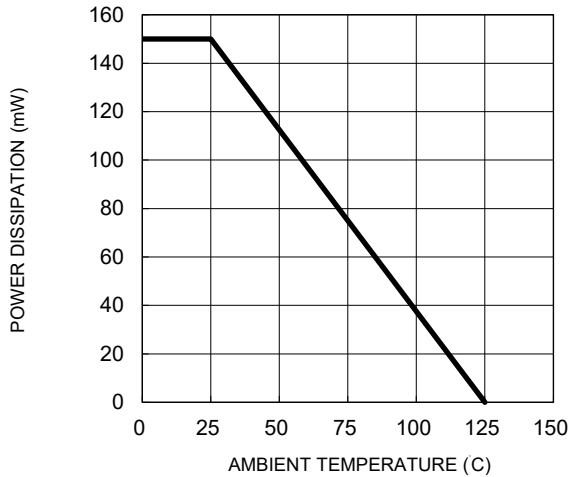


Fig.2 Typical Junction Capacitance

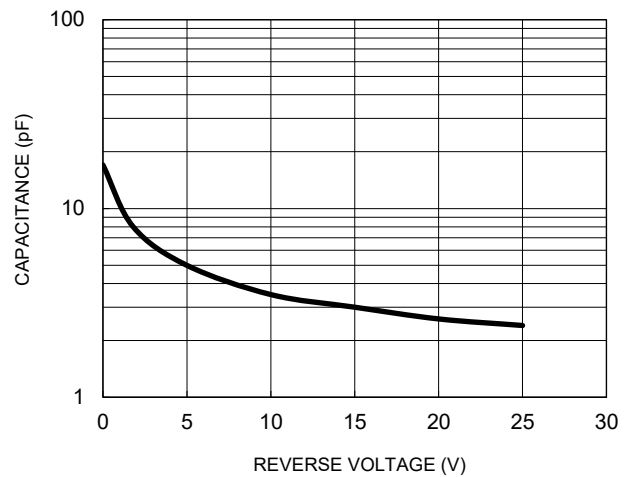


Fig.3 Typical Reverse Characteristics

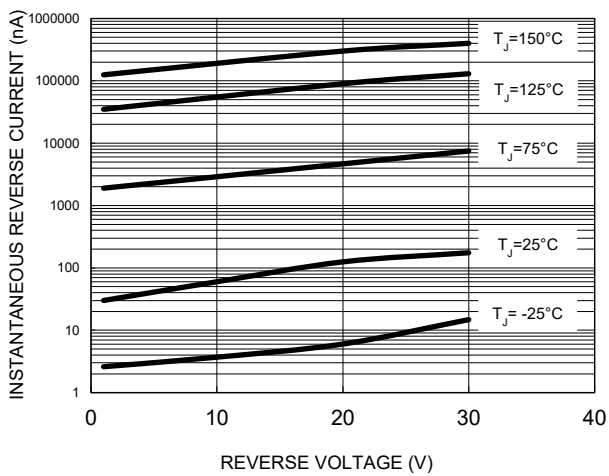
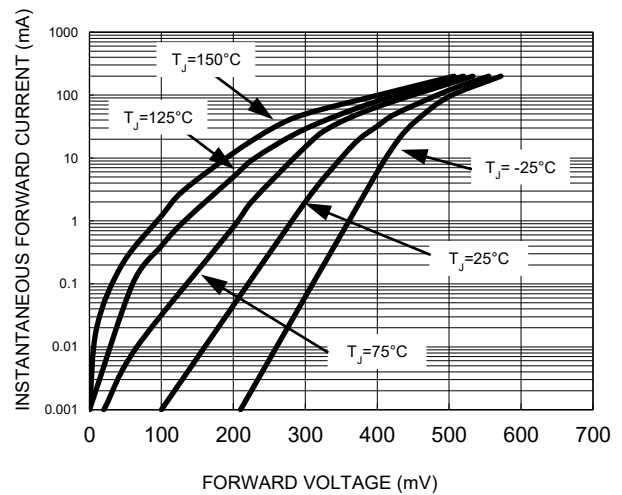
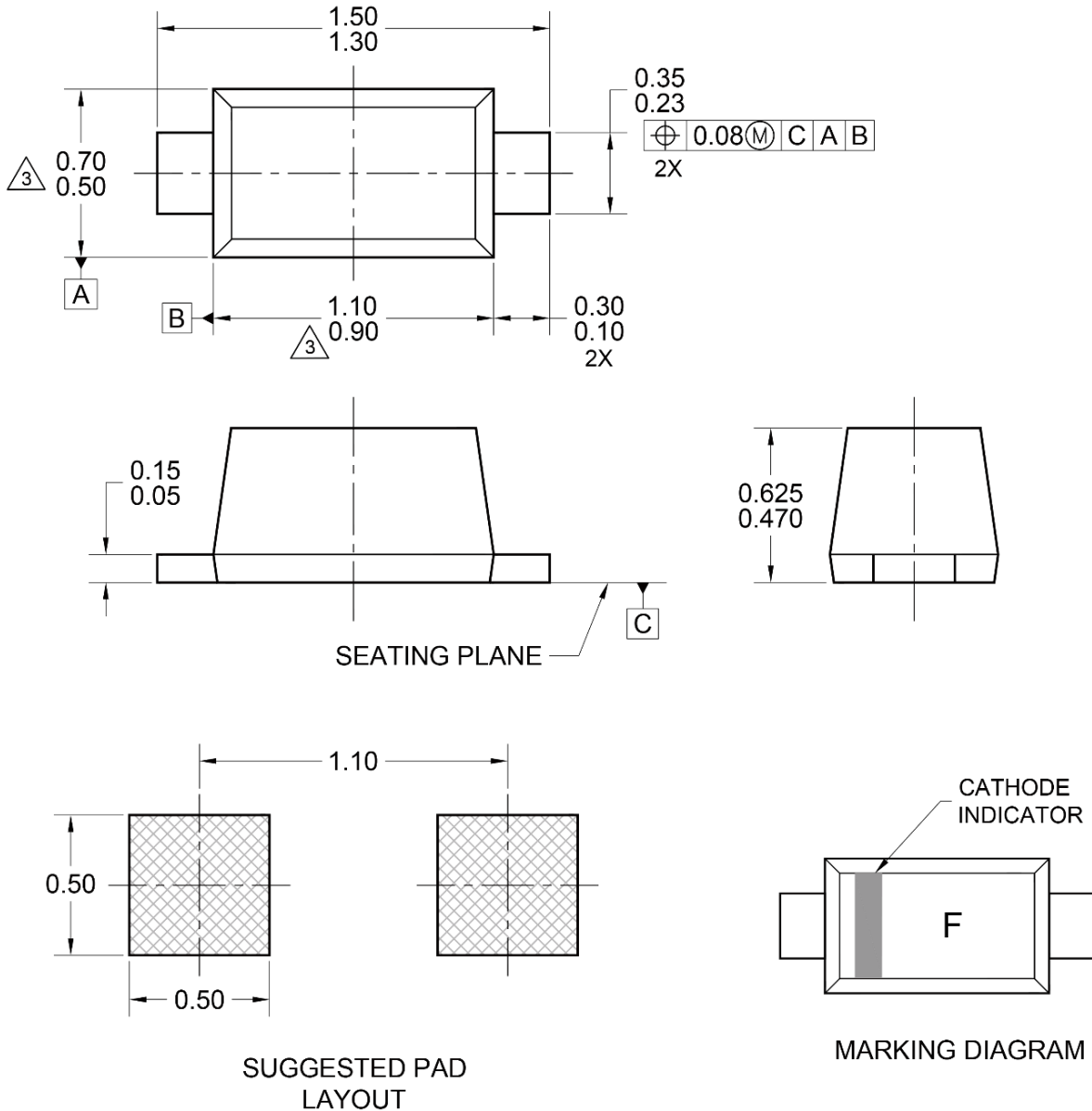


Fig.4 Typical Forward Characteristics



PACKAGE OUTLINE DIMENSIONS

SOD-723F



NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-2009.
3. MODIFIED PLASTIC BODY DIMENSIONS DO NOT INCLUDE MOLD FLASH.
4. DWG NO. REF: HQ2SD07-SOD723F-118 REV A.

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