

200mA, 30V Low VF SMD Schottky Barrier Diode

FEATURES

- Low capacitance
- Low forward voltage drop
- 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-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: 1.68 ± 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	


**HALOGEN
FREE**


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

PARAMETER	CONDITIONS	SYMBOL	MIN	MAX	UNIT
Forward voltage per diode ⁽¹⁾	$I_F = 200\text{mA}$, $T_J = 25^\circ\text{C}$	V_F	-	0.5	V
Reverse breakdown voltage	$I_R = 500\text{ }\mu\text{A}$, $T_J = 25^\circ\text{C}$	$V_{(BR)}$	30	-	V
Reverse leakage current ⁽²⁾	$V_R = 10\text{V}$, $T_J = 25^\circ\text{C}$	I_R	-	30	μA

Notes:

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

ORDERING INFORMATION

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

CHARACTERISTICS CURVES

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

Fig. 1 Forward Characteristics

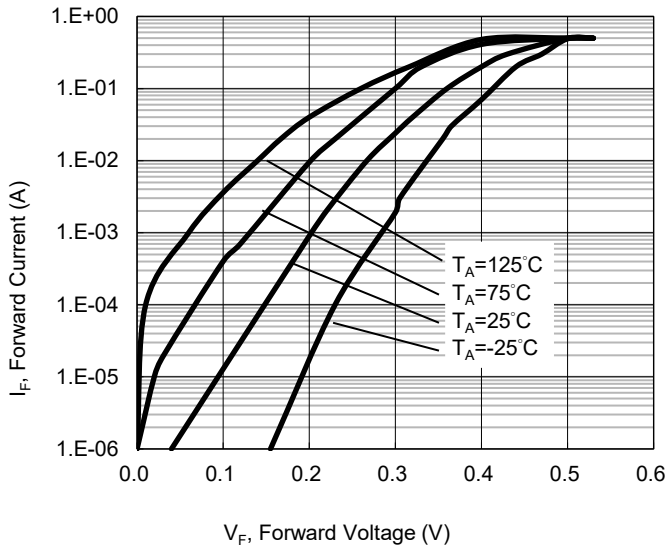


Fig. 2 Reverse Characteristics

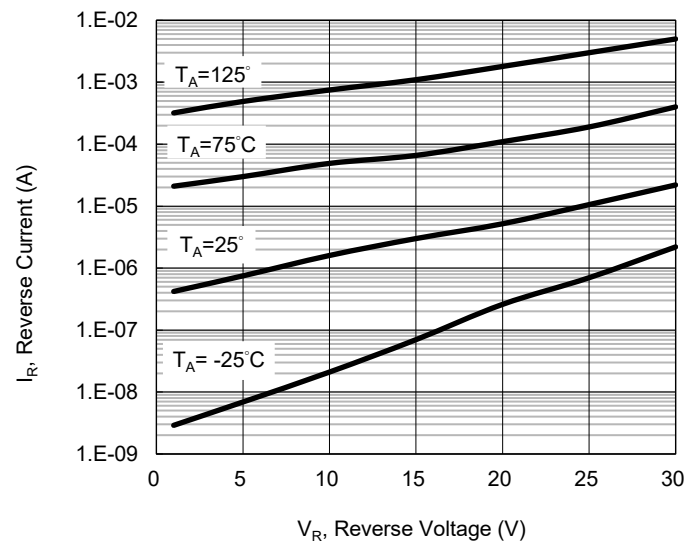
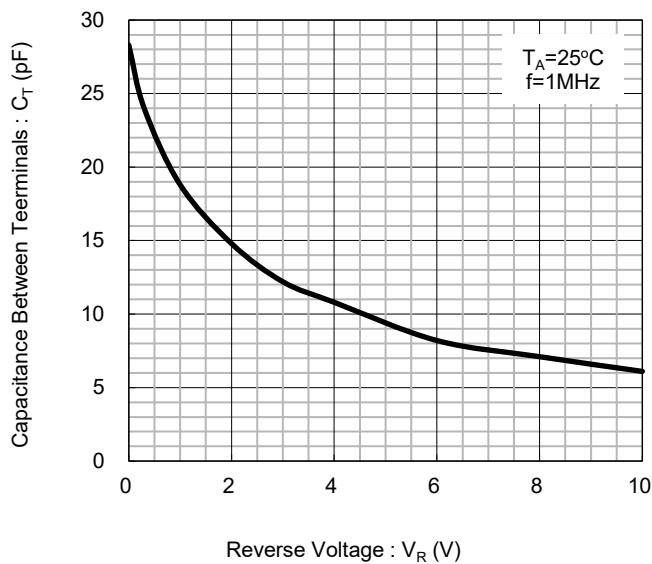
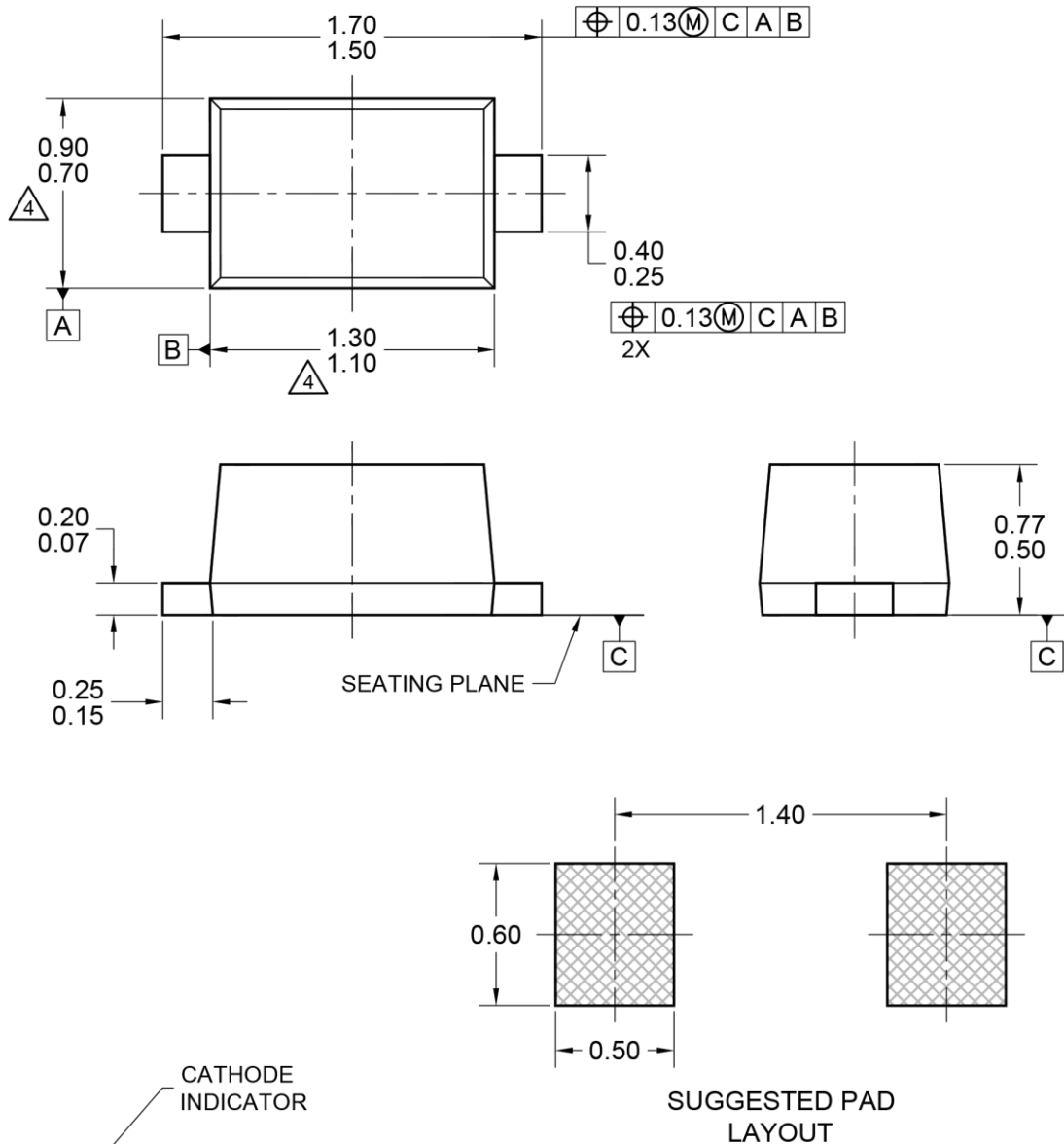


Fig. 3 Total Capacitance



PACKAGE OUTLINE DIMENSIONS

SOD-523F



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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