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 ± 0.5mg (approximately)

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

Pb-Free RoHS COMPLIANT HALOGEN FREE



SOD-723F



ABSOLUTE MAXIMUM RATINGS (T_A = 25°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 = 8.3ms)	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

Downloaded from Arrow.com.

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	-	0.45	V
Reverse current @ rated V_R(2)	V_R = 10V, T_J = 25°C	I_R	-	0.50	μA

Notes:

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

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

Downloaded from Arrow.com.

CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

Fig.1 Power Dissipation Curve

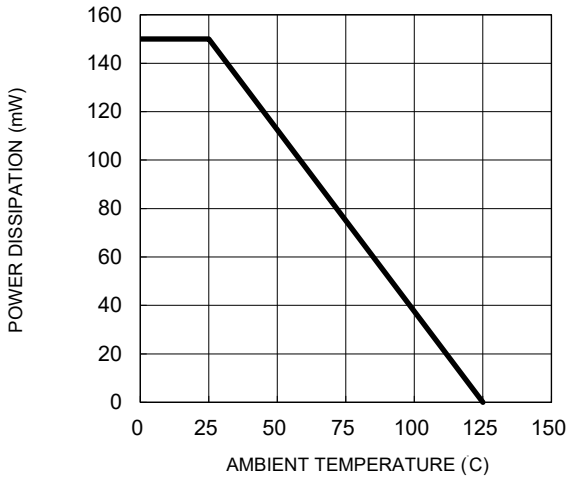


Fig.2 Typical Junction Capacitance

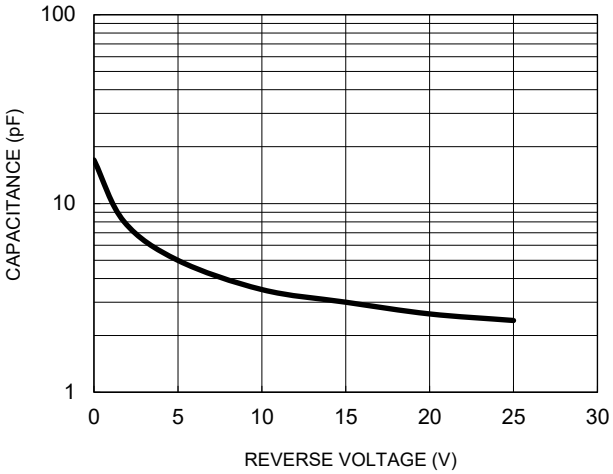


Fig.3 Typical Reverse Characteristics

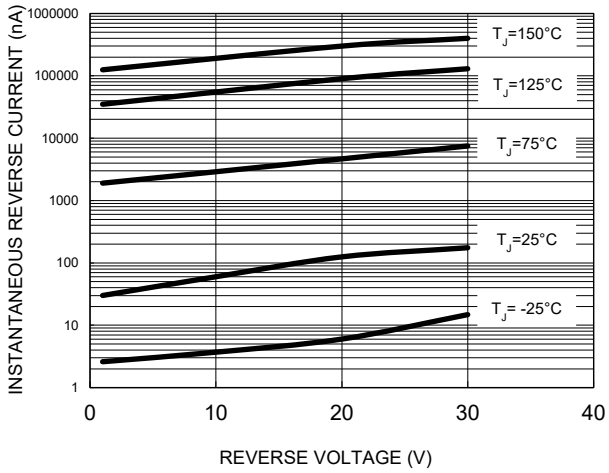
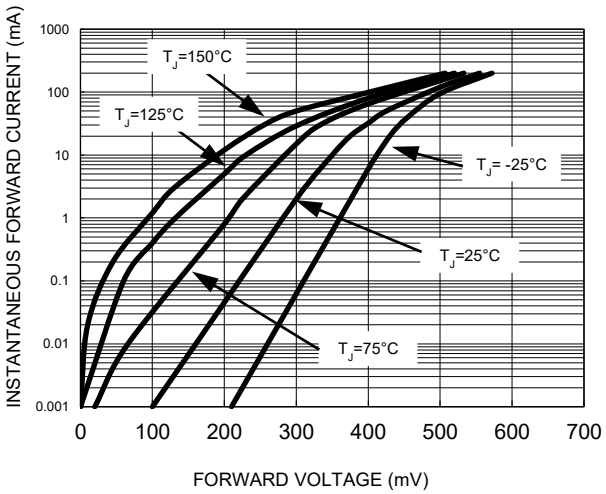


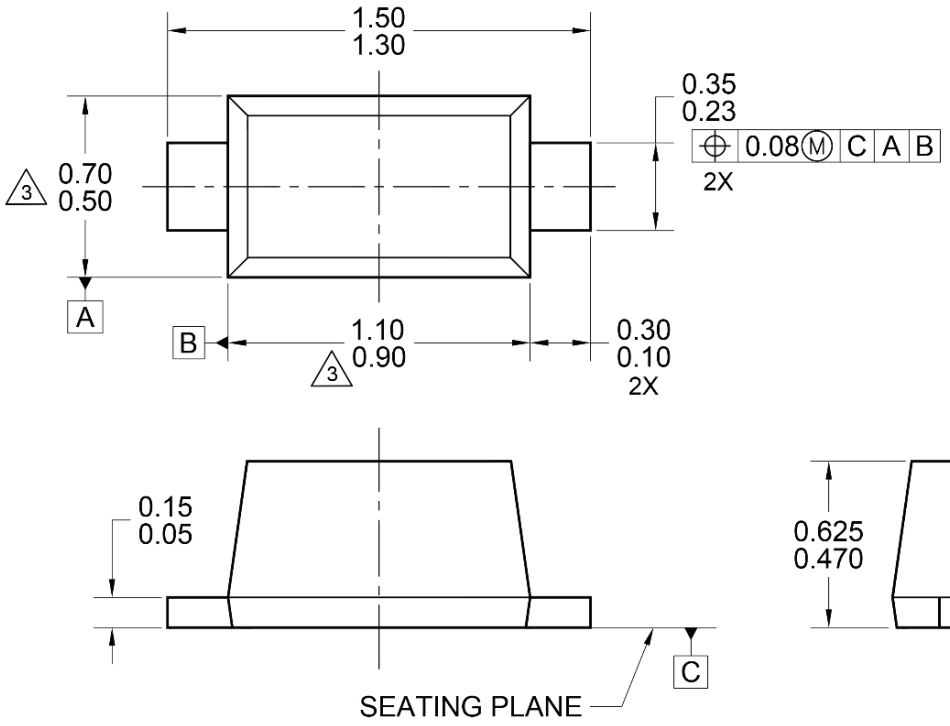
Fig.4 Typical Forward Characteristics

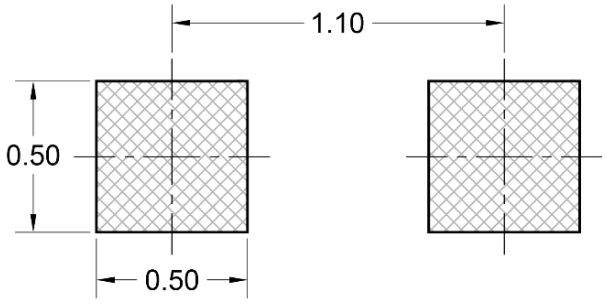


Downloaded from Arrow.com.

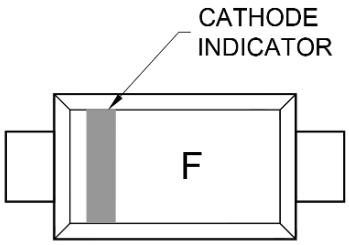
PACKAGE OUTLINE DIMENSIONS

SOD-723F





SUGGESTED PAD LAYOUT



MARKING DIAGRAM

F = Device marking

NOTES: UNLESS OTHERWISE SPECIFIED

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

Downloaded from Arrow.com.

Notice

Specifications of the products displayed herein are subject to change without notice. TSC or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Purchasers are solely responsible for the choice, selection, and use of TSC products and TSC assumes no liability for application assistance or the design of Purchasers' products.

Information contained herein is intended to provide a product description only. No license, express or implied, to any intellectual property rights is granted by this document. Except as provided in TSC's terms and conditions of sale for such products, TSC assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of TSC products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify TSC for any damages resulting from such improper use or sale.

Downloaded from Arrow.com.