# NSR0130M2T5G

# **Schottky Barrier Diode**

These Schottky barrier diodes are designed for high–speed switching applications, circuit protection, and voltage clamping. Extremely low forward voltage reduces conduction loss. Miniature surface mount package is excellent for hand–held and portable applications where space is limited.

- Extremely Fast Switching Speed
- Extremely Low Forward Voltage 0.385 V (max) @  $I_F = 10 \text{ mA}$
- Low Reverse Current
- This is a Pb–Free Device

#### MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Reverse Voltage	V <sub>R</sub>	30	Vdc
Forward Current DC	١ <sub>F</sub>	100	mA
Forward Current Surge Peak (60 Hz, 1 cycle)	I <sub>FSM</sub>	1.0	A
ESD Rating: Class 3B per Human Body Mode Class B per Machine Model	I		

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

#### THERMAL CHARACTERISTICS

Characteristic	Symbol	Мах	Unit
Total Device Dissipation FR–5 Board, (Note 1) T <sub>A</sub> = 25°C	PD	200	mW
Derate above 25°C		2.0	mW/°C
Thermal Resistance, Junction-to-Ambient	$R_{\thetaJA}$	600	°C/W
Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	–55 to +125	°C

1. FR-5 Minimum Pad.

#### ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted)

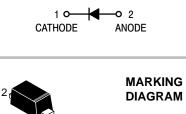
Characteristic	Symbol	Min	Тур	Max	Unit
Reverse Leakage $(V_R = 10 V)$ $(V_R = 30 V)$	I <sub>R</sub>		-	0.35 3.0	μΑ
Forward Voltage $(I_F = 10 \text{ mA})$ $(I_F = 100 \text{ mA})$	V <sub>F</sub>		-	0.385 0.525	Vdc



### **ON Semiconductor®**

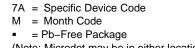
http://onsemi.com

## 30 V SCHOTTKY BARRIER DIODE



1 SOD-723 CASE 509AA PLASTIC

# 1 7A M•



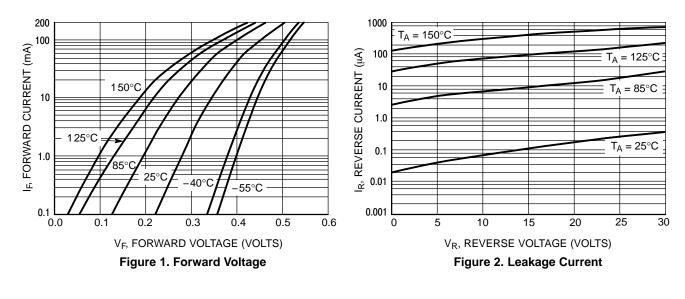
(Note: Microdot may be in either location)

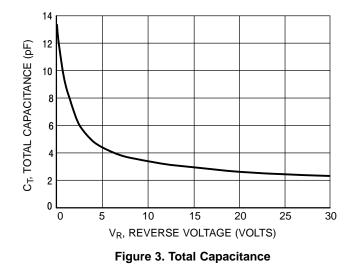
#### ORDERING INFORMATION

Device	Package	Shipping†
NSR0130M2T5G	SOD-723	2 mm Pitch 8000/Tape & Reel

+For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

## NSR0130M2T5G

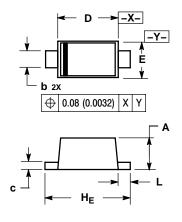




#### NSR0130M2T5G

#### PACKAGE DIMENSIONS

SOD-723 CASE 509AA-01 ISSUE O

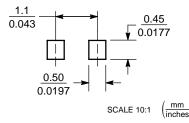


NOTES: DIES.
DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
CONTROLLING DIMENSION: MILLIMETER.

- 2.
- MAXIMUM LEAD THICKNESS INCLUES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

	MILLIMETERS			INCHES			
DIM	MIN	NOM	MAX	MIN	NOM	MAX	
Α	0.49	0.52	0.55	0.019	0.020	0.022	
b	0.25	0.28	0.32	0.0098	0.011	0.013	
С	0.08	0.12	0.15	0.0032	0.0047	0.0059	
D	0.95	1.00	1.05	0.037	0.039	0.041	
Е	0.55	0.60	0.65	0.022	0.024	0.026	
HE	1.35	1.40	1.45	0.053	0.055	0.057	
L	0.15	0.20	0.25	0.006	0.0079	0.010	

#### **SOLDERING FOOTPRINT\***



#### SOD-723

\*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

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