NSR0130M2

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.

Features

- Extremely Fast Switching Speed
- Extremely Low Forward Voltage 0.385 V (max) @ I_F = 10 mA
- Low Reverse Current
- These Devices are Pb−Free, Halogen Free/BFR Free and are RoHS Compliant

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	30	Vdc
Forward Current DC	I_F	100	mA
Forward Current Surge Peak (60 Hz, 1 cycle)	I_{FSM}	1.0	A
ESD Rating: Class 3B per Human Body Model Class B per Machine Model			

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR−5 Board, (Note 1) T_A = 25°C Derate above 25°C	P_D	200 2.0	mW mW/°C
Thermal Resistance, Junction−to−Ambient	$R_{\theta JA}$	600	°C/W
Junction and Storage Temperature Range	T_J, T_{stg}	−55 to +125	°C

1. FR−5 Minimum Pad.

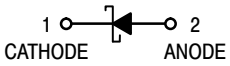
ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

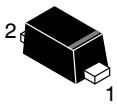
Characteristic	Symbol	Min	Typ	Max	Unit
Reverse Leakage (V_R = 10 V) (V_R = 30 V)	I_R	 – –	 – –	 0.35 3.0	μA
Forward Voltage (I_F = 10 mA) (I_F = 100 mA)	V_F	 – –	 – –	 0.385 0.525	Vdc

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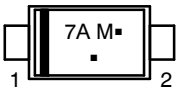
30 V SCHOTTKY BARRIER DIODE





SOD−723
CASE 509AA

MARKING DIAGRAM



7A = Specific Device Code
M = Month Code
▪ = Pb−Free Package
(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.

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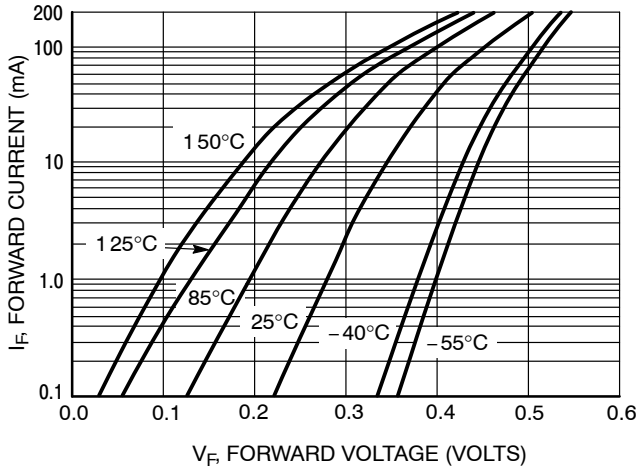


Figure 1. Forward Voltage

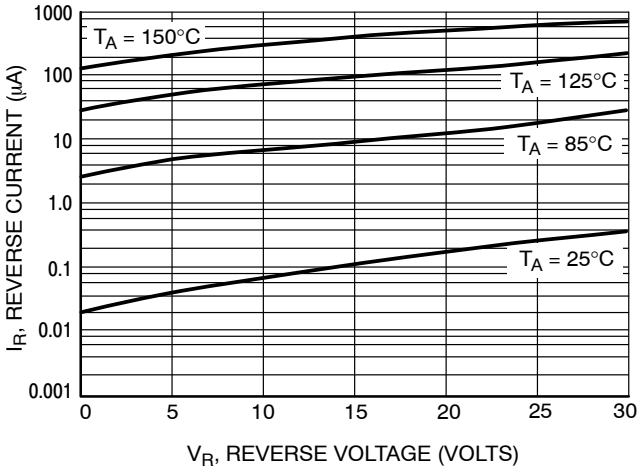


Figure 2. Leakage Current

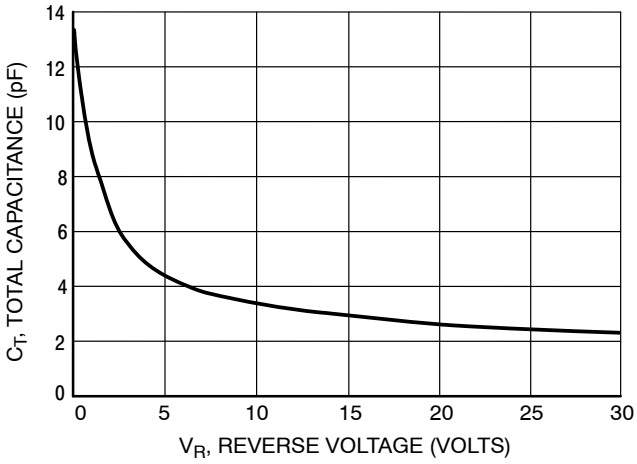


Figure 3. Total Capacitance

MECHANICAL CASE OUTLINE
PACKAGE DIMENSIONS

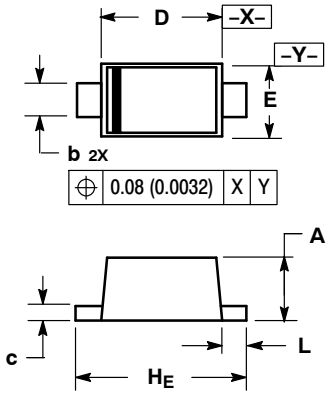
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SOD−723
CASE 509AA−01
ISSUE O

DATE 02 MAR 2005



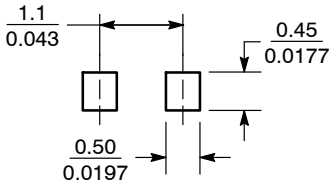
SCALE 8:1



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH THICKNESS. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.

	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	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
c	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
E	0.55	0.60	0.65	0.022	0.024	0.026
H_E	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*



SCALE 10:1 (mm / inches)

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.

GENERIC MARKING DIAGRAM*



XX = Specific Device Code
M = Date Code

*This information is generic. Please refer to device data sheet for actual part marking.
Pb−Free indicator, "G" or microdot " ▪", may or may not be present.

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DESCRIPTION:	**SOD−723, 2−LEAD, 1.4X0.6X0.52 MM**	**PAGE 1 OF 1**

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