

NSR0140

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-0.28V (typ)@I_F=1.0mA
- Low reverse current
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

Case: SOD-923, Plastic

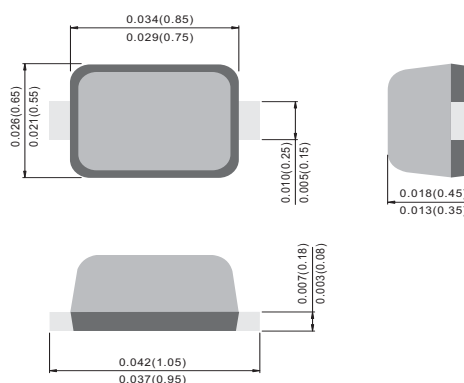
Terminals: Solderable per MIL-STD-750, Method 2026

Approx. Weight: 0.0004gram

Marking: K

SOD-923

Unit: inch (mm)



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNITS
Peak Reverse Voltage	V _{RM}	40	V
Reverse Voltage	V _R	30	V
Forward Continuous Current (DC)	I _F	70	mA
Peak Forward Surge Current	I _{FSM}	500	mA

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	MAX.	UNIT
Total Device Dissipation FR-4 Board, (Note 1) T _A =25°C Derate above 25°C	P _D	100 1.0	mW mW/°C
Thermal Resistance, Junction-to-Ambient	R _{θJA}	1000	°C/W
Junction and Storage Temperature Range	T _J , T _{STG}	-55 to + 125	°C

1.FR-4 Minimum Pad

NSR0140

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

CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT
Reverse Breakdown Voltage (I _R =10μA)	V _{(BR)R}	30	-	-	V
Total Capacitance (V _R =1.0V, f=1.0MHz)	C _T	-	2.0	2.5	pF
Reverse Leakage (V _R =30V)	I _R	-	300	500	nA
Forward Voltage (I _F =1.0mA)	V _F	-	0.28	0.35	V

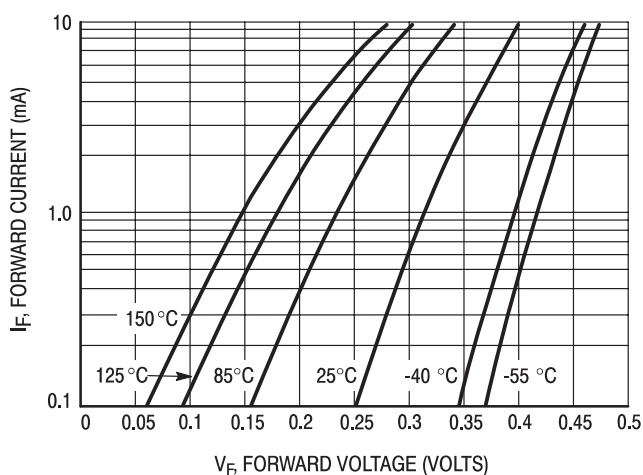


Figure 1. Typical Forward Voltage

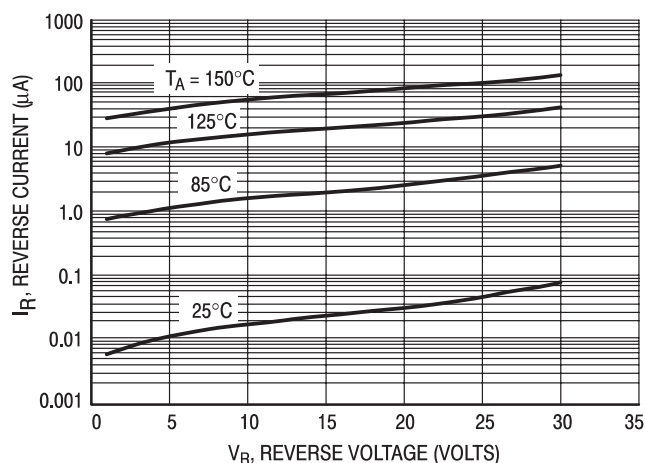


Figure 2. Reverse Current versus Reverse Voltage

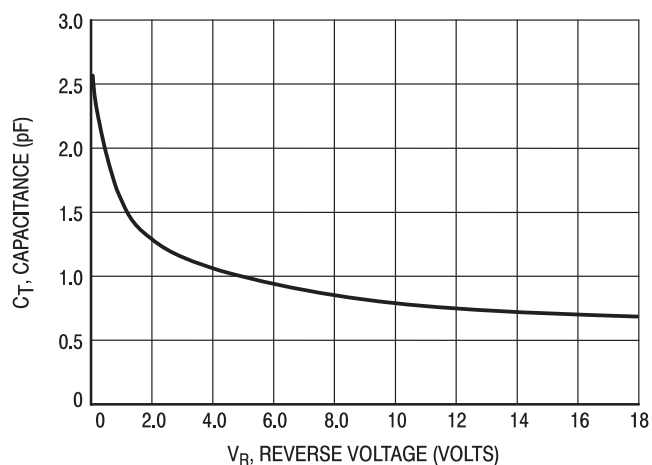


Figure 3. Typical Capacitance

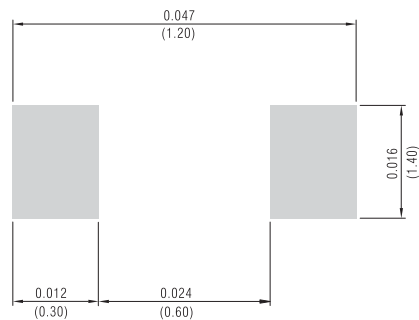


NSR0140

MOUNTING PAD LAYOUT

SOD-923

Unit: inch (mm)



ORDER INFORMATION

- Packing information
- T/R - 8K per 7" plastic Reel

LEGAL STATEMENT

Copyright PanJit International, Inc 2008

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.