

1SS400

SURFACE MOUNT SWITCHING DIODE

This device is an extremely fast switching diode housed in the ultra-small SOD-523 package. Ideal for applications

FEATURES

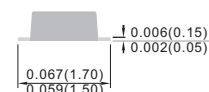
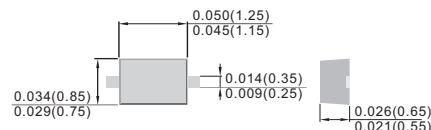
- Extremely fast reverse recovery time to reduce switching losses
- Very low capacitance for reduced insertion losses
- Reverse voltage rating of 80V
- Also available in lead-free plating (100% matte tin finish)
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: SOD-523, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: See Diagram Below
- Approx.Weight : 0.0014 grams, 0.0001 ounces
- Marking : 14

SOD-523

Unit : inch(mm)



MAXIMUM RATINGS $T_J = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED

PARAMETER	SYMBOL	LIMITS	UNITS
Peak Reverse Voltage	V_{RM}	90	V
Continuous Reverse Voltage	V_R	80	V
Continuous Forward Current	I_F	225	mA
Non-repetitive Peak Forward Current , $t = 0.001\text{ms}$, Square Wave	I_{FSM}	4	A
Total Power Dissipation (Note1)	P_{tot}	200	mW
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 150	$^\circ\text{C}$

Note 1. FR-5 Board 1.0 x 0.75 x 0.062 in

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	LIMITS	UNITS
Thermal Resistance, Junction to Ambient	$R\theta_{JA}$	625	$^\circ\text{C} / \text{W}$



1SS400

ELECTRICAL CHARACTERISTICS $T_J = 25^{\circ}\text{C}$ UNLESS OTHERWISE NOTED

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Forward Voltage (Note 2)	V_F	$I_F = 100\text{mA}$	-	-	1.2	V
Reverse Leakage Current	I_R	$V_R = 80\text{V}$	-	-	0.1	μA
Junction Capacitance	C_D	0Vdc Bias, $f = 1\text{MHz}$	-	3	-	pF
Reverse Recovery Time (See Figure 1)	t_{rr}	$I_F = 10\text{mA}$, $I_R = 10\text{mA}$ $R_L = 100\ \Omega$; measured at $I_{R\text{rec}} = 1\text{mA}$	-	-	4.0	ns

Note 2. Short duration pulse test to avoid self-heating effect

1SS400

TYPICAL CHARACTERISTIC CURVES

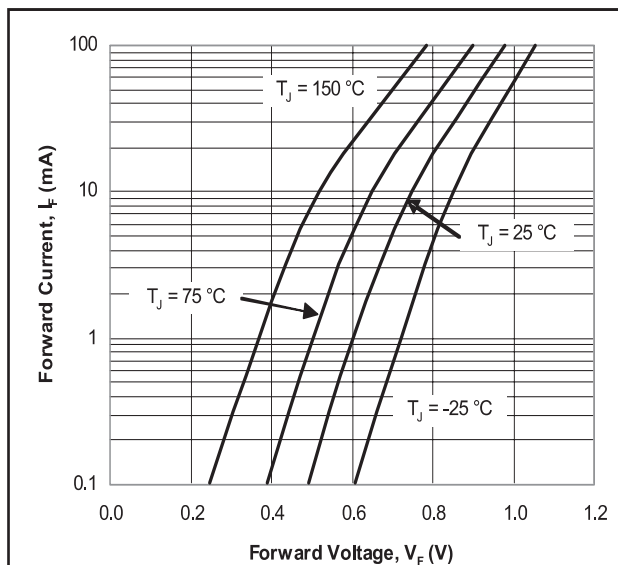


Fig. 2. Typical Forward Characteristics

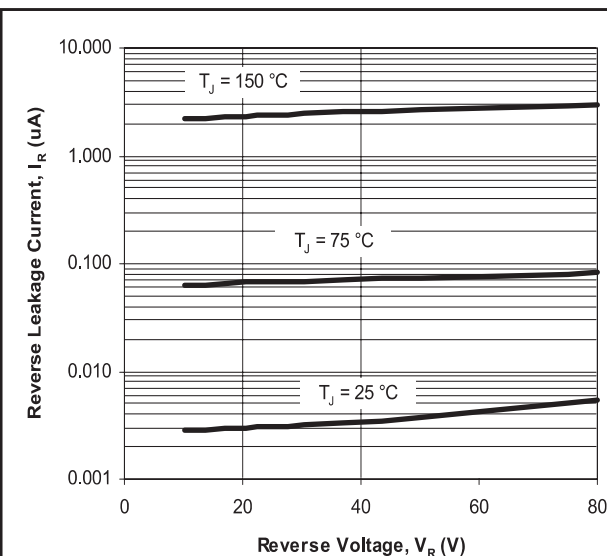


Fig. 3. Typical Reverse Characteristics

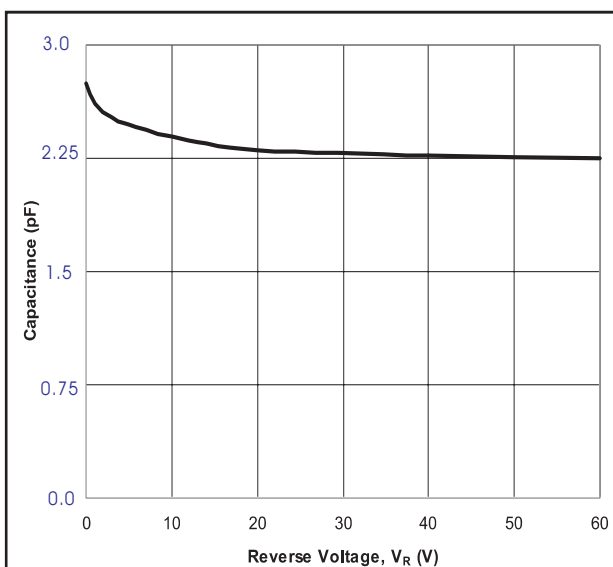
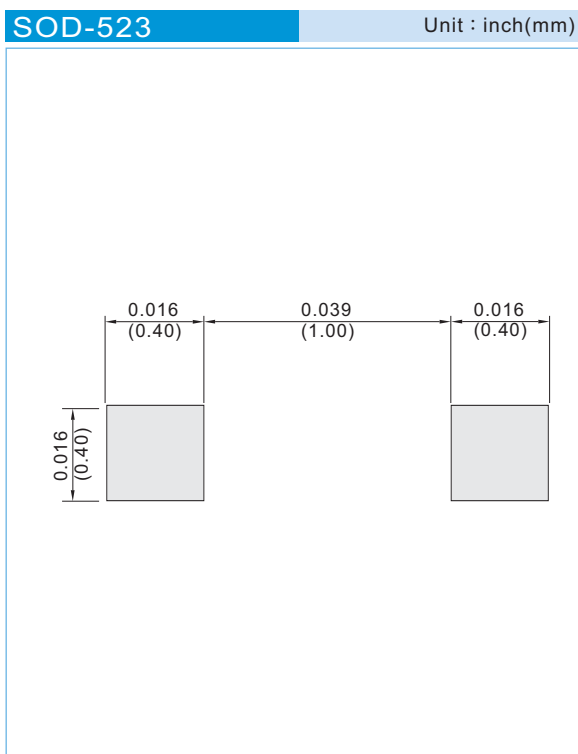


Fig. 4. Typical Capacitance

1SS400

MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 5K per 7" plastic Reel

LEGAL STATEMENT

Copyright PanJit International, Inc 2011

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.