



1SS400

SURFACE MOUNT SWITCHING DIODE

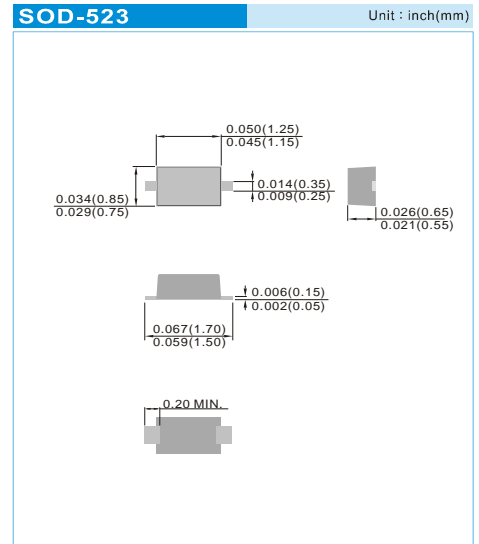
This device is an extremely fast switching diode housed in the ultra-small SOD-523 package. Ideal for applications

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)
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std..(Halogen Free)

MECHANICAL DATA

- Case: SOD-523, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Approx.Weight : 0.0014 ounces, 0.0001 grams
- Marking : 14



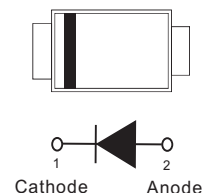
MAXIMUM RATINGS $T_J = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED

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}	$I_F = 10\text{mA}$, $I_R = 10\text{mA}$ $R_L = 100\ \text{Ohms}$; measured at $I_{R\text{rec}} = 1\text{mA}$	-	-	4.0	ns

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

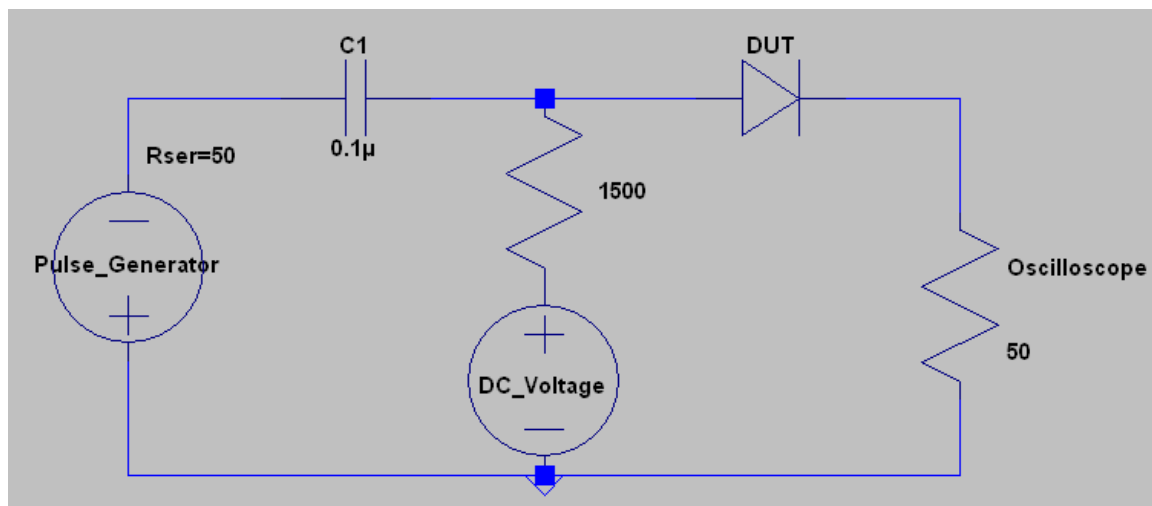


Figure 1. Reverse Recovery Time Equivalent Test Circuit



1SS400

TYPICAL CHARACTERISTIC CURVES

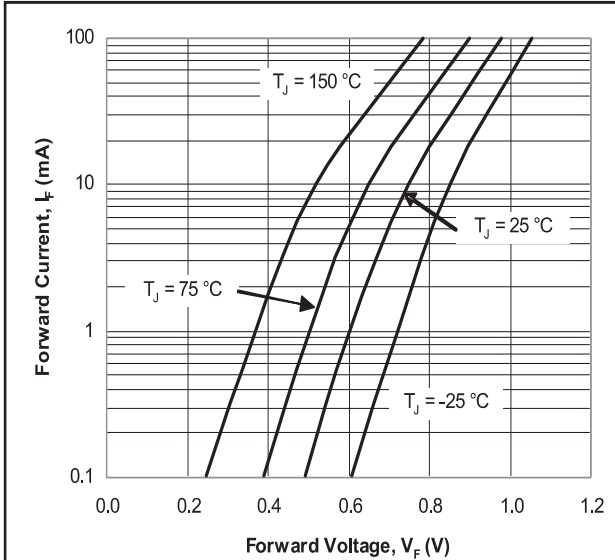


Fig. 2. Typical Forward Characteristics

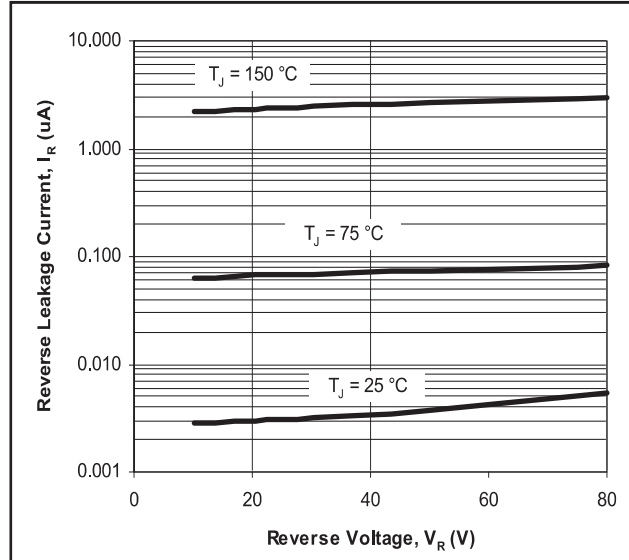


Fig. 3. Typical Reverse Characteristics

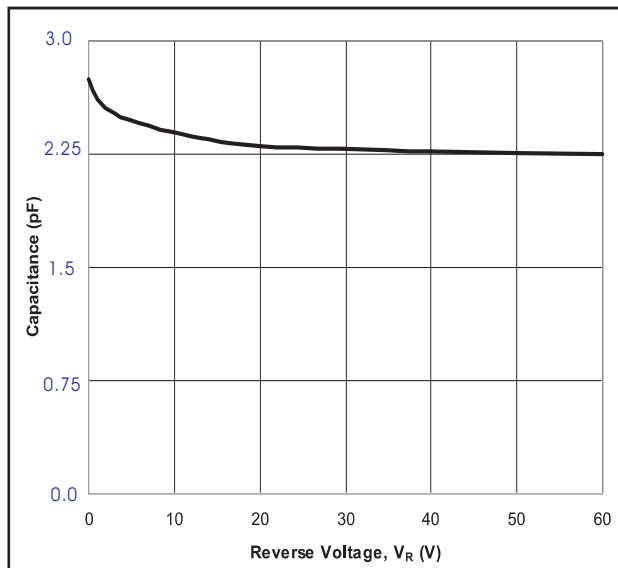


Fig. 4. Typical Capacitance

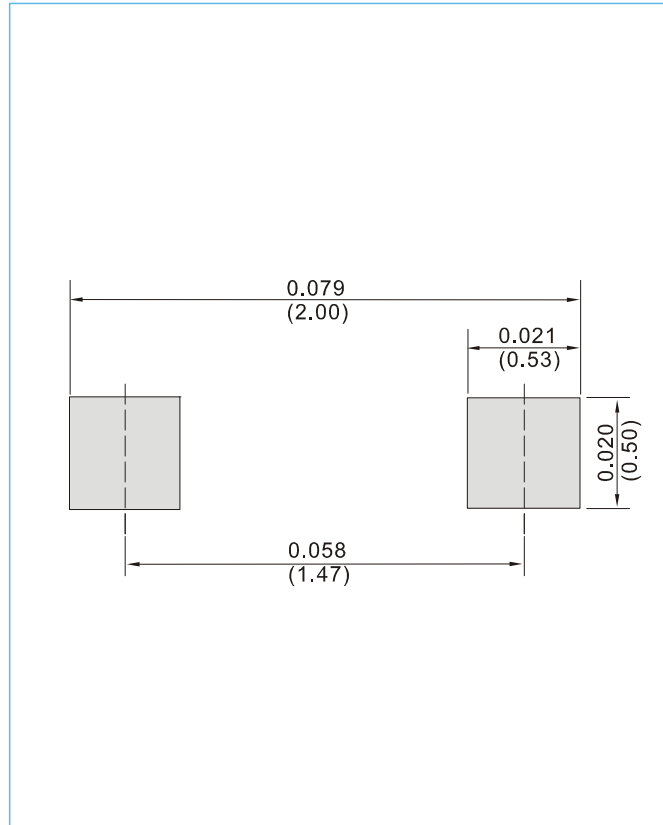


1SS400

MOUNTING PAD LAYOUT

SOD-523

Unit : inch(mm)



ORDER INFORMATION

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



1SS400

Part No_packing code_Version

1SS400_R1_00001

1SS400_R2_00001

For example :

RB500V-40 **R2** **00001**



Packing Code XX				Version Code XXXXX		
Packing type	1 st Code	Packing size code	2 nd Code	HF or RoHS	1 st Code	2 nd ~5 th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



1SS400

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.