1SS400

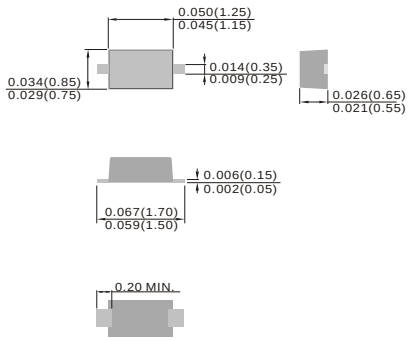
SURFACE MOUNT SWITCHING DIODE

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)

SOD-523 Unit : inch(mm)



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

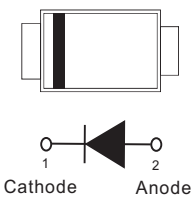
MAXIMUM RATINGS T_J = 25°C UNLESS OTHERWISE NOTED

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 = 0.001ms, 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	°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	°C / W



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ELECTRICAL CHARACTERISTICS T_J = 25°C UNLESS OTHERWISE NOTED

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

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

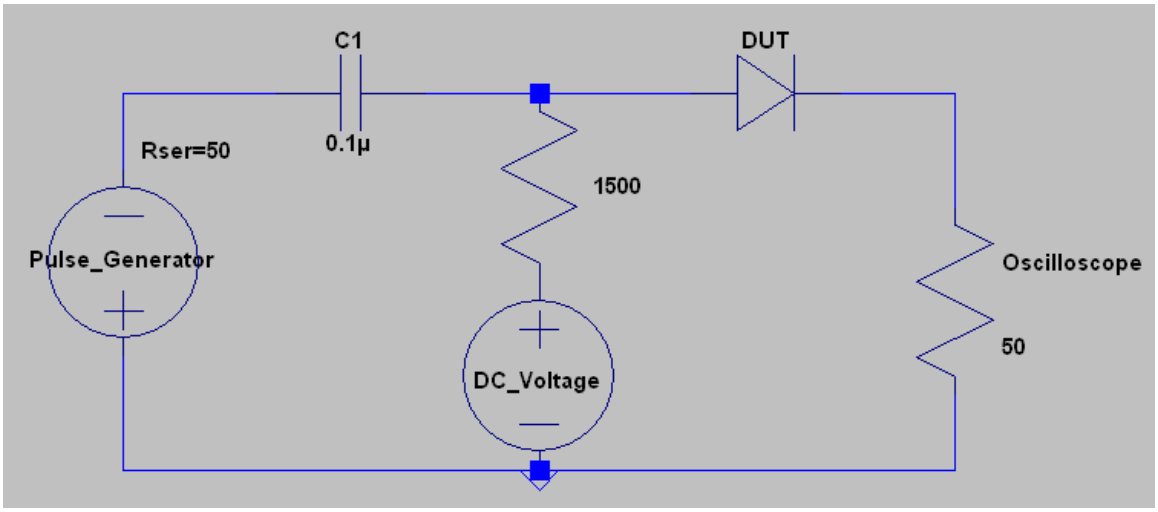

Figure 1. Reverse Recovery Time Equivalent Test Circuit

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TYPICAL CHARACTERISTIC CURVES

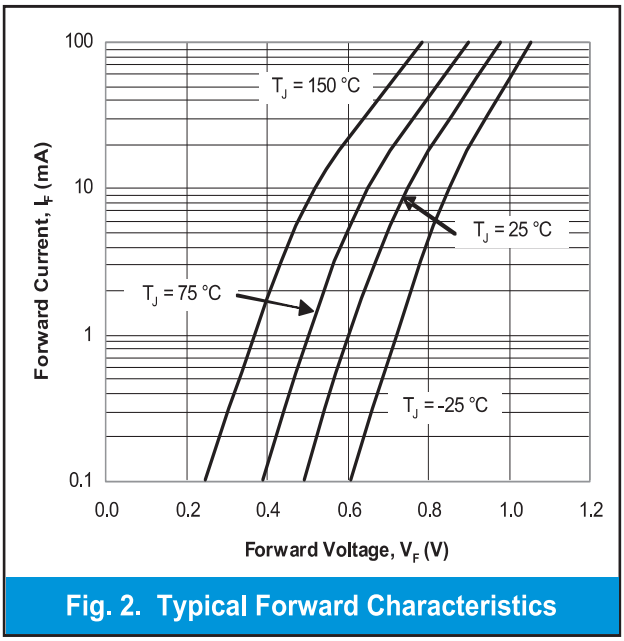

Fig. 2. Typical Forward Characteristics

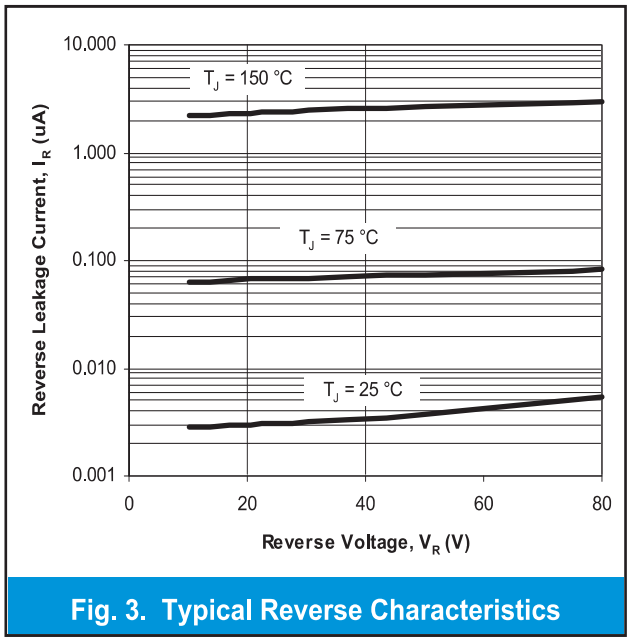

Fig. 3. Typical Reverse Characteristics

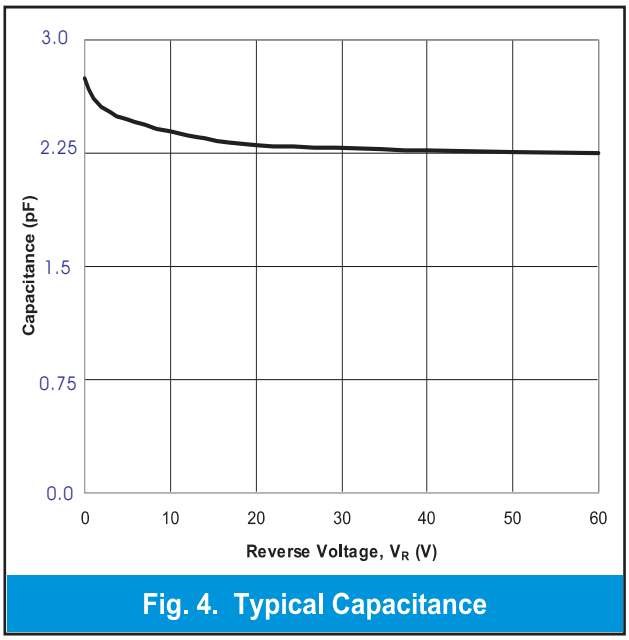

Fig. 4. Typical Capacitance

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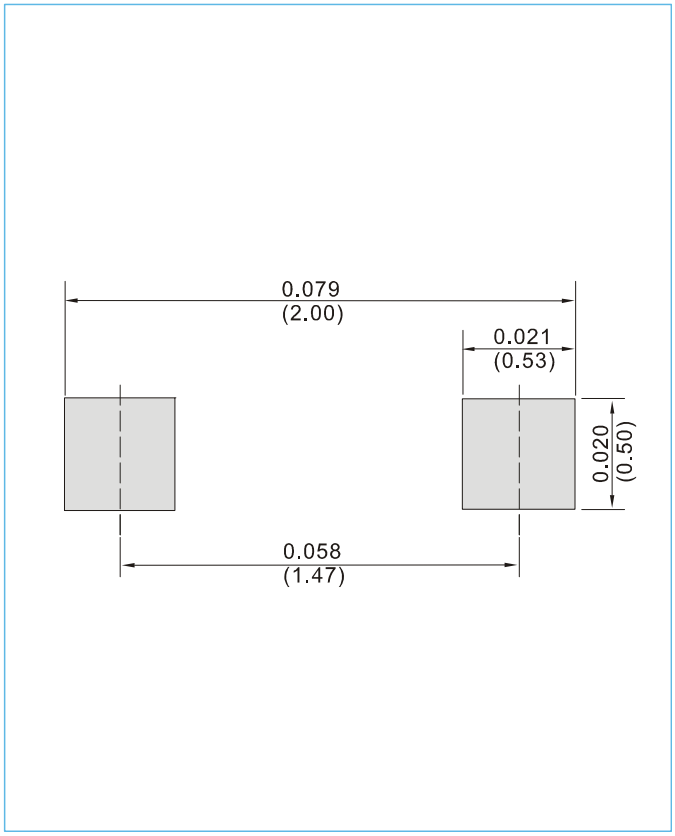
MOUNTING PAD LAYOUT

SOD-523 Unit : inch(mm)



ORDER INFORMATION

- Packing information

  T/R - 12K per 13" plastic Reel

  T/R - 5K per 7" plastic Reel

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