1SS400G

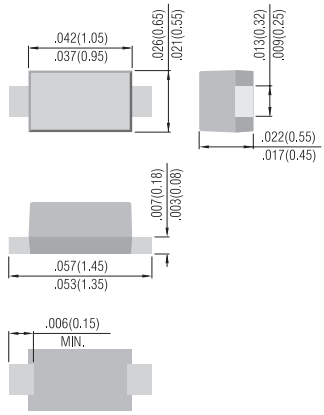
SURFACE MOUNT SWITCHING DIODE

This device is an extremely fast switching diode housed in the ultra-small SOD-723 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

SOD-723 Unit: inch (mm)



MECHANICAL DATA

Case: SOD-723, Plastic

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

Polarity: See Diagram Below

Approx.Weight : 0.00077 gram

Marking : BE

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 = 0.01ms, Square Wave	I_{FSM}	2	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 0.62 in

THERMAL CHARACTERISTICS

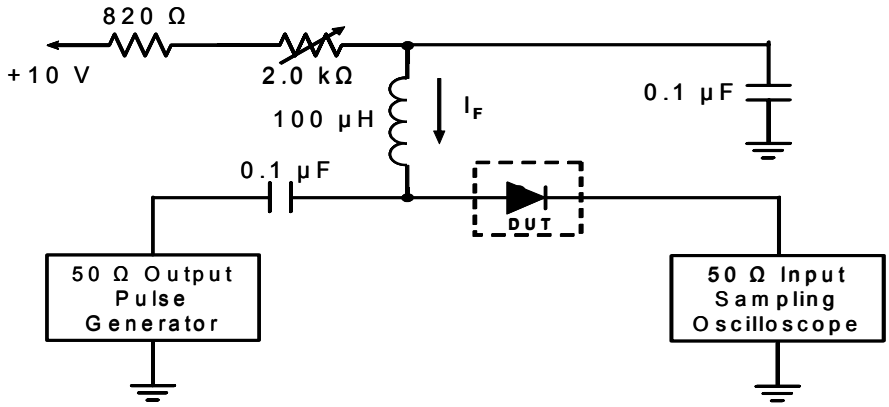
PARAMETER	SYMBOL	LIMITS	UNITS
Thermal Resistance, Junction to Ambient	RθJA	625	°C / W

1SS400G

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	V
Reverse Leakage Current	I_R	V_R = 80V	-	-	0.1	µA
Junction Capacitnace	C_D	0.5Vdc Bias, f = 1MHz	-	0.7	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



Notes: 1. A 2.0kΩ variable resistor adjusted for a forward current (I_F) to 10mA
2. Input pulse is adjusted to $I_{R(peak)}$ is equal to 10mA

Figure 1. REVERSE RECOVERY TIME EQUIVALENT TEST CIRCUIT

1SS400G

TYPICAL CHARACTERISTIC CURVES

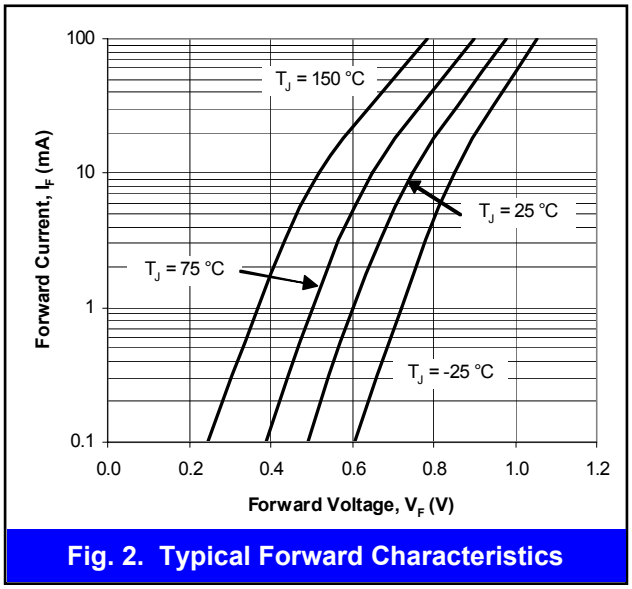


Fig. 2. Typical Forward Characteristics

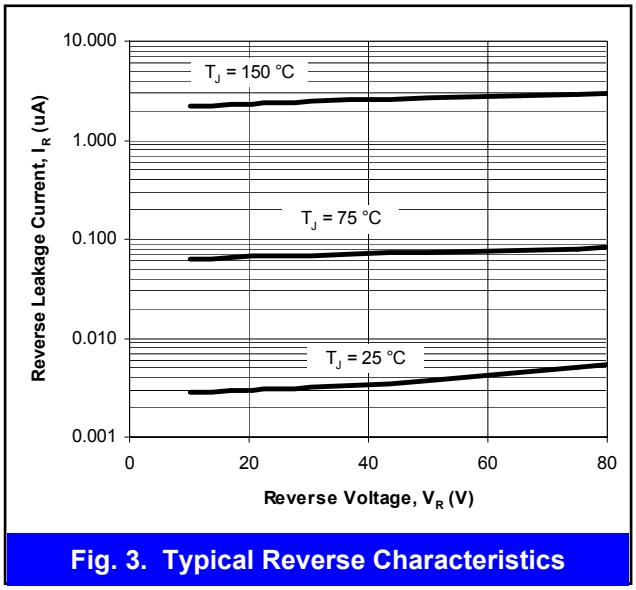


Fig. 3. Typical Reverse Characteristics

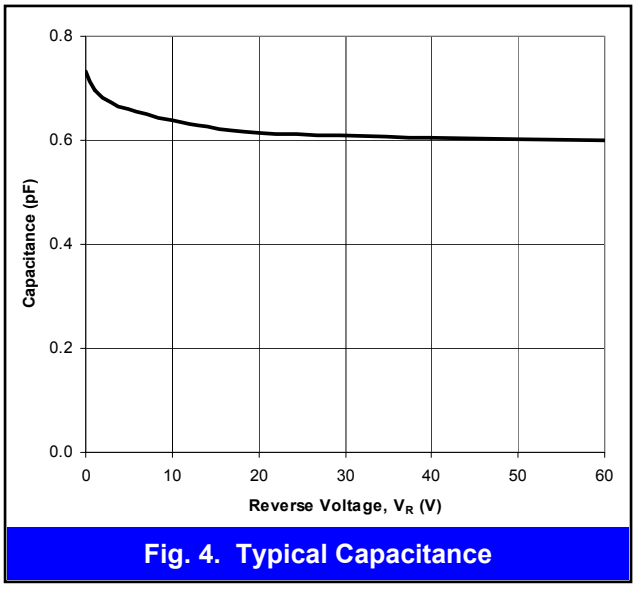
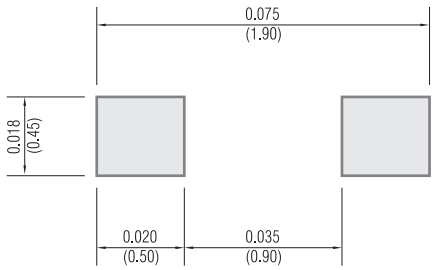


Fig. 4. Typical Capacitance

1SS400G

MOUNTING PAD LAYOUT

SOD-723 Unit: inch (mm)



ORDER INFORMATION

- Packing information

  T/R - 8K per 7" plastic Reel

LEGAL STATEMENT

Copyright PanJit International, Inc 2007

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.