



# 1SS397

## HIGH VOLTAGE, HIGH SPEED SWITCHING APPLICATIONS

**VOLTAGE** 420 Volts      **CURRENT** 100mA

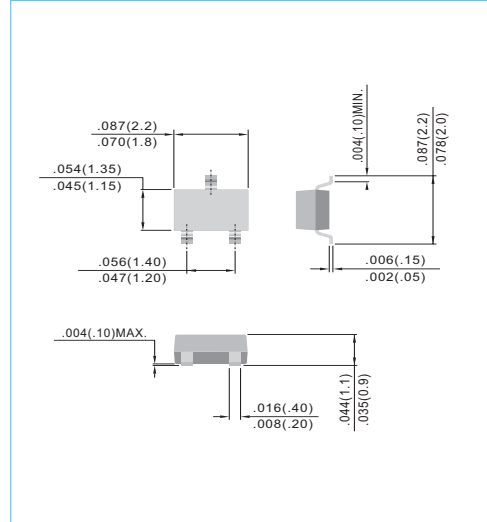
**SOT-323**      Unit: inch (mm)

### FEATURES

- Fast switching speed.
- Surface mount package Ideally Suited for Automatic insertion
- Electrically Identical to Standard JEDEC
- High Conductance
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: SOT-323, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.008 gram



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	1SS397	UNITS
Marking Code		B9	
Maximum (peak) reverse Voltage	$V_{RRM}$	420	V
Reverse Voltage	$V_R$	400	V
Maximum (peak) forward current	$I_{FM}$	300	mA
Average Forward current	$I_o$	100	mA
Surge Current $I_{FSM}$ @ $t_p=0.001ms$	$I_{FSM}$	4	A
Power Dissipation	$P_{TOT}$	100	mW
Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +125	°C

**NOTE:**

1. CJ at  $V_R=0, f=1MHZ$
2. From  $I_F=10mA$  to  $I_R=1mA, V_R=6Volts, R_L=100\Omega$

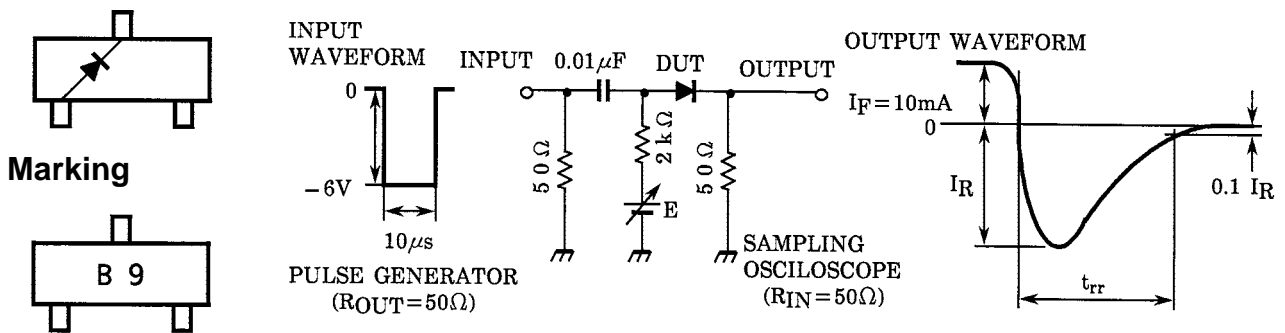


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## ELECTRICAL CHARACTERISTICS $T_A=25^\circ\text{C}$

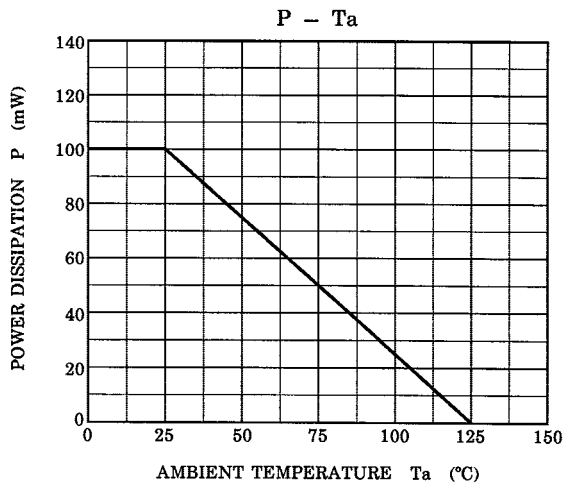
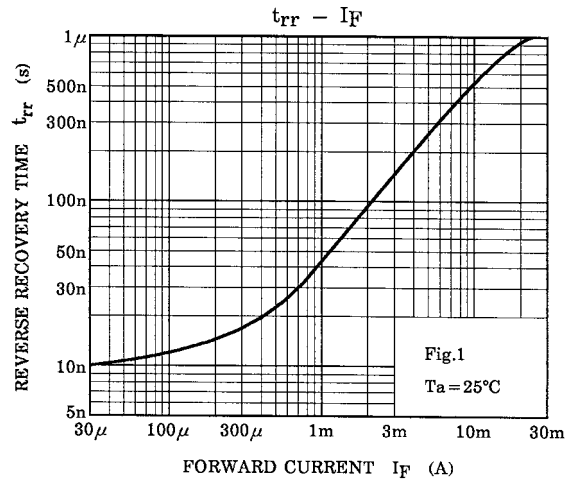
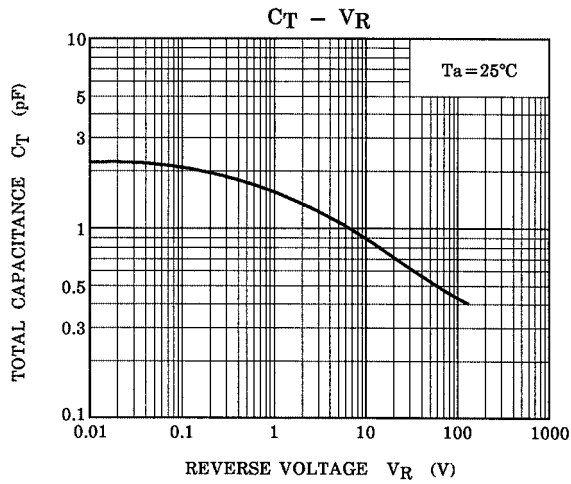
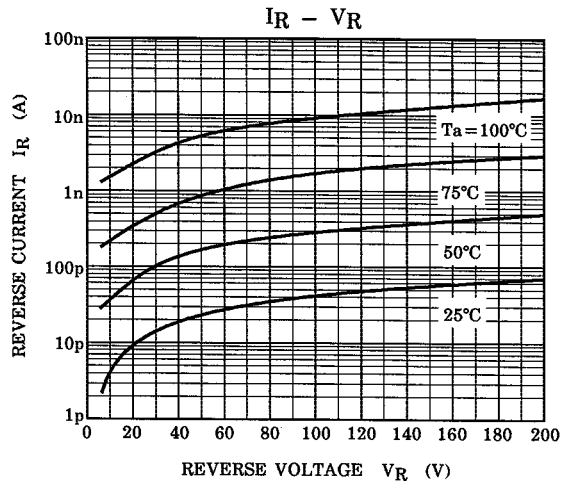
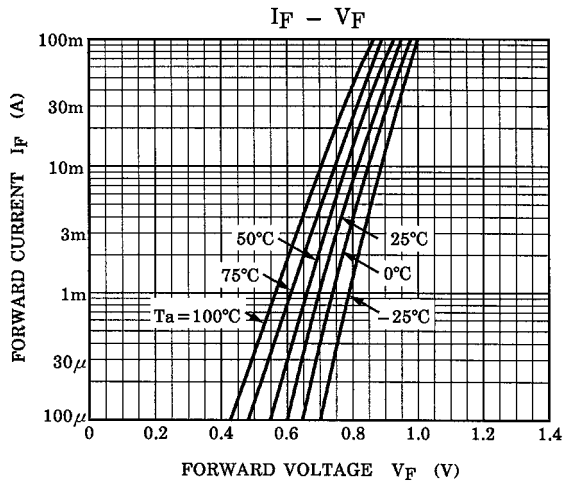
Characteristic	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Forward voltage	$V_F$	-	$I_F=10\text{mA}$ $I_F=100\text{mA}$	-	1.0	0.9 1.3	V
Reverse current	$I_R$	-	$V_R=300\text{V}$ $V_R=400\text{V}$	-	-	0.1 1.0	$\mu\text{A}$
Total capacitance	$C_T$	-	$V_R=0, f=1\text{MHz}$	-	2.5	5.0	pF
Reverse recovery time	$t_{rr}$	-	$I_F=10\text{mA}$	-		500	nS

### Equivalent Circuit Fig.1 Reverse Recovery Time ( $t_{rr}$ ) Test Circuit(Top View)





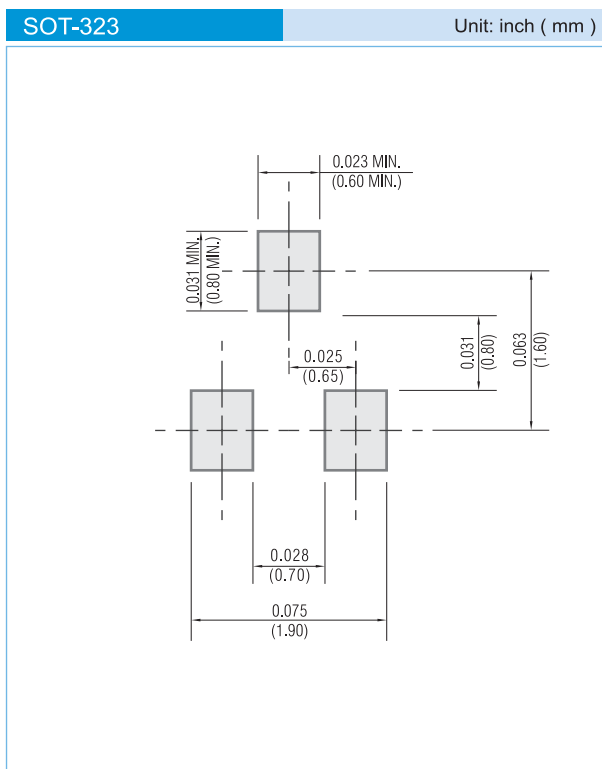
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## MOUNTING PAD LAYOUT



### ORDER INFORMATION

- Packing information
  - T/R - 12K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel

### LEGAL STATEMENT

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