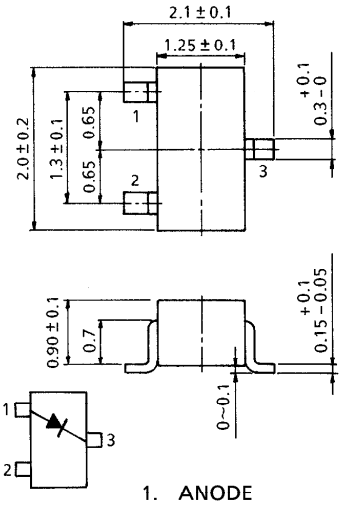
TOSHIBA DIODE SILICON EPITAXIAL PLANAR DIODE

1SS397

HIGH VOLTAGE, HIGH SPEED SWITCHING APPLICATIONS.

Unit in mm

- Low Forward Voltage : $V_F = 1.0V$ (Typ.)
- High Voltage : $V_R = 400V$ (Min.)
- Fast Reverse Recovery Time : $t_{rr} = 0.5\mu s$ (Typ.)
- Small Total Capacitance : $C_T = 2.5pF$ (Typ.)
- Small Package : SC-70



1. ANODE
2. N.C.
3. CATHODE

USM	
JEDEC	—
EIAJ	SC-70
TOSHIBA	1-2P1D

Weight : 0.006g

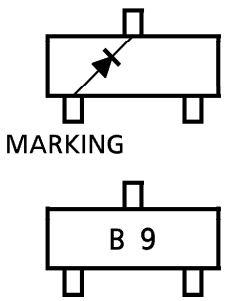
MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Maximum (Peak) Reverse Voltage	V_{RM}	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 (10ms)	I_{FSM}	2	A
Power Dissipation	P	100	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	−55~125	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

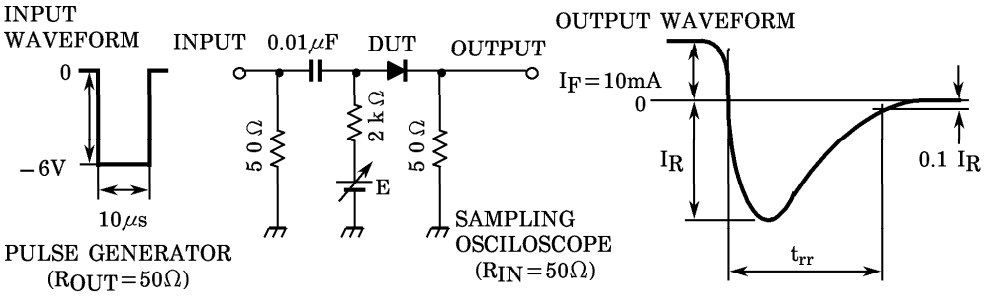
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_{F(1)}$	$I_F = 10mA$	—	0.8	—	V
	$V_{F(2)}$	$I_F = 100mA$	—	1.0	1.3	
Reverse Current	$I_{R(1)}$	$V_R = 300V$	—	—	0.1	μA
	$I_{R(2)}$	$V_R = 400V$	—	—	1.0	
Total Capacitance	C_T	$V_R = 0$, f = 1MHz	—	2.5	5.0	pF
Reverse Recovery Time	t_{rr}	$I_F = 10mA$ (Fig.1)	—	0.5	—	μs

EQUIVALENT CIRCUIT (TOP VIEW)



MARKING

Fig1. REVERSE RECOVERY TIME (t_{rr}) TEST CIRCUIT



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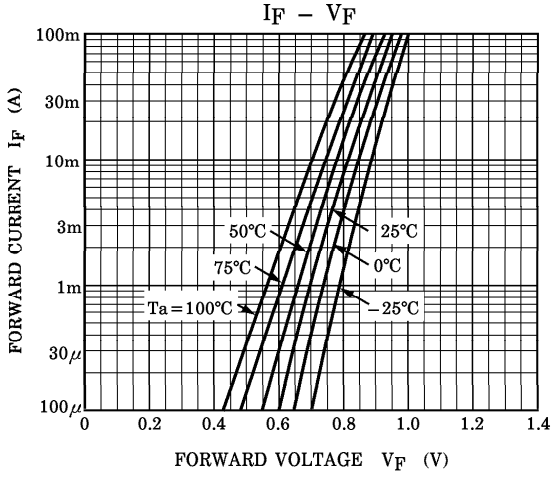
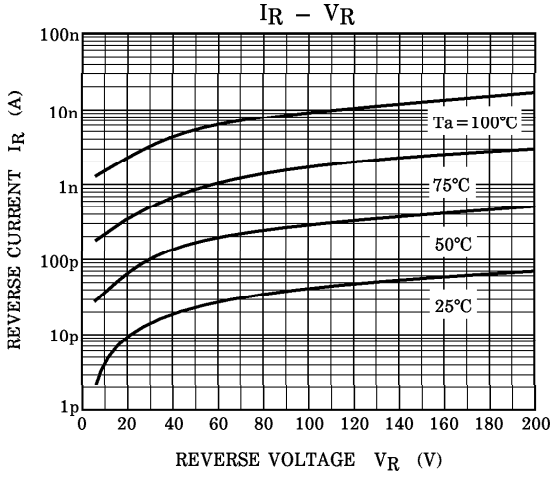
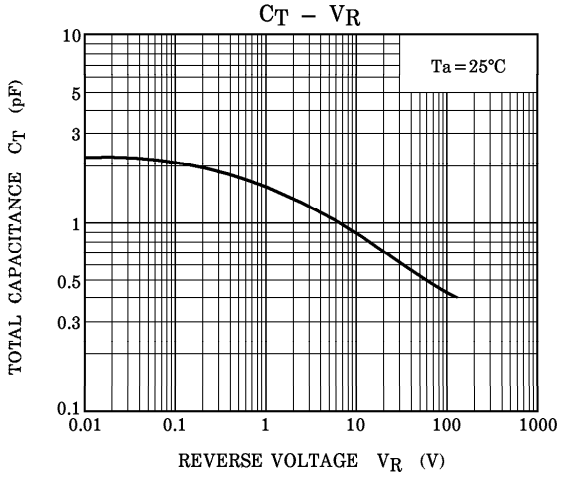
$I_F - V_F$



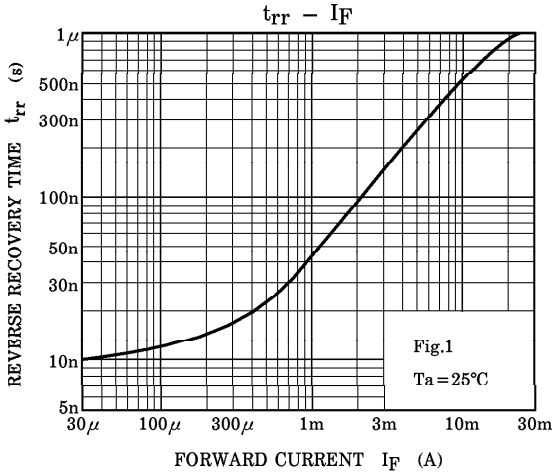
$I_R - V_R$



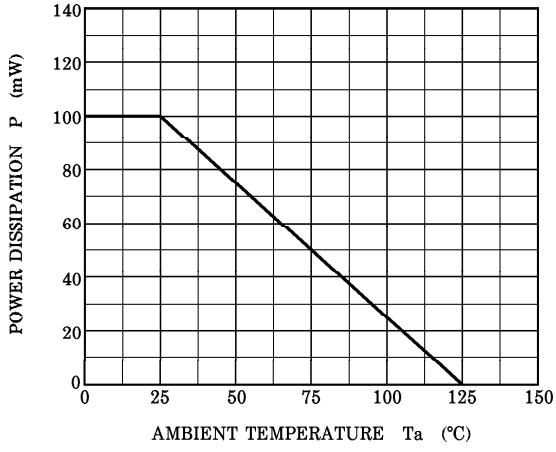
$C_T - V_R$



$t_{rr} - I_F$



$P - Ta$



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