

TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

1SS306

HIGH VOLTAGE, HIGH SPEED SWITCHING APPLICATIONS.

Unit in mm

- Low Forward Voltage : $V_F(2) = 0.90V$ (Typ.)
- Fast Reverse Recovery Time : $t_{rr} = 30ns$ (Max.)
- Small Total Capacitance : $C_T = 1.5pF$ (Typ.)
- Small Package : SC-61

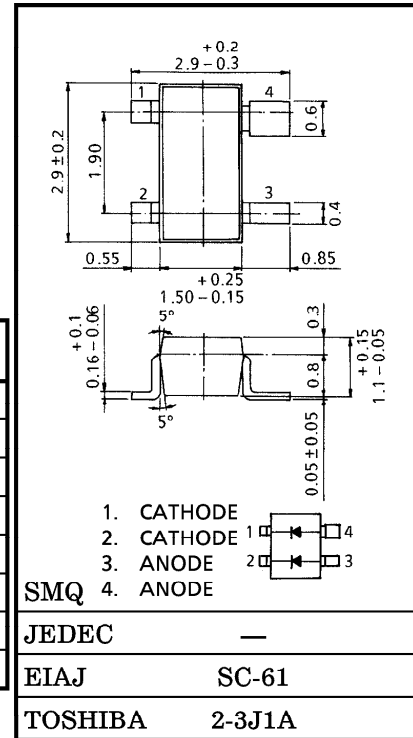
MAXIMUM RATINGS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Maximum (Peak) Reverse Voltage	V_{RM}	250	V
Reverse Voltage	V_R	200	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	150	mW
Junction Temperature	T_j	125	$^\circ C$
Storage Temperature Range	T_{stg}	$-55 \sim 125$	$^\circ C$

(*) Unit Rating. Total Rating=Unit Rating $\times$ 1.5

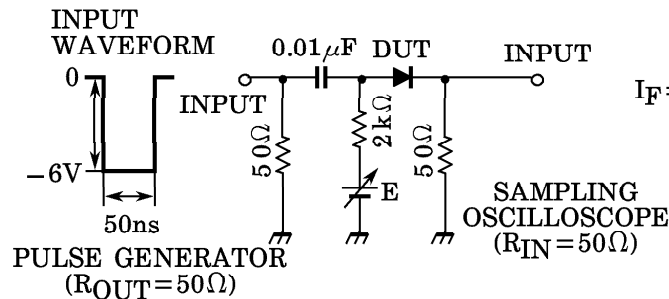
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_F(1)$	$I_F = 10mA$	—	0.72	1.0	V
	$V_F(2)$	$I_F = 100mA$	—	0.9	1.2	
Reverse Current	$I_R(1)$	$V_R = 50V$	—	—	0.1	μA
	$I_R(2)$	$V_R = 200V$	—	—	1.0	
Total Capacitance	C_T	$V_R = 0, f = 1MHz$	—	1.5	3.0	pF
Reverse Recovery Time	t_{rr}	$I_F = 10mA$ Fig.1	—	30	60	ns

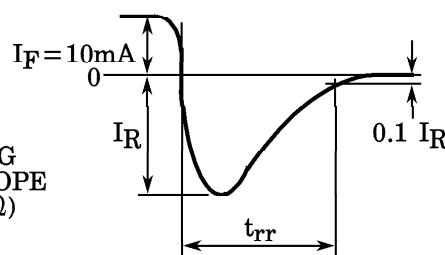


Weight : 0.013g

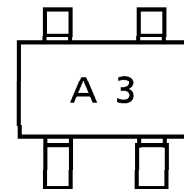
Fig.1 REVERSE RECOVERY TIME (t_{rr}) TEST CIRCUIT



OUTPUT WAVEFORM

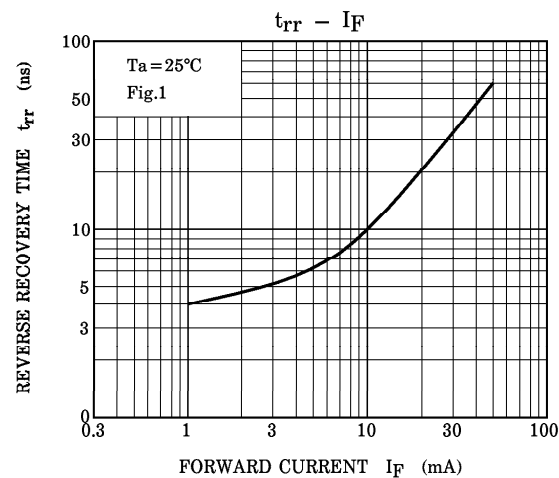
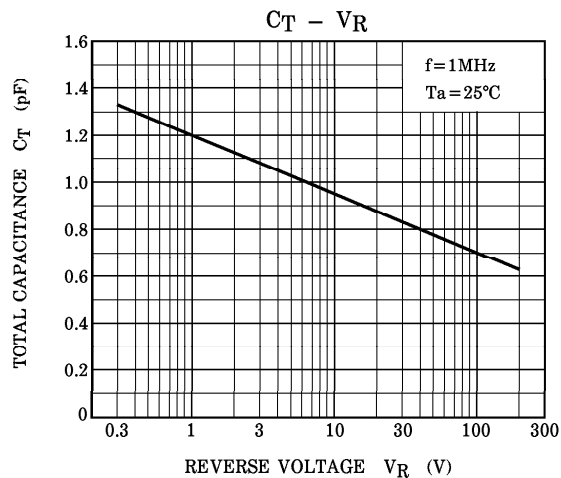
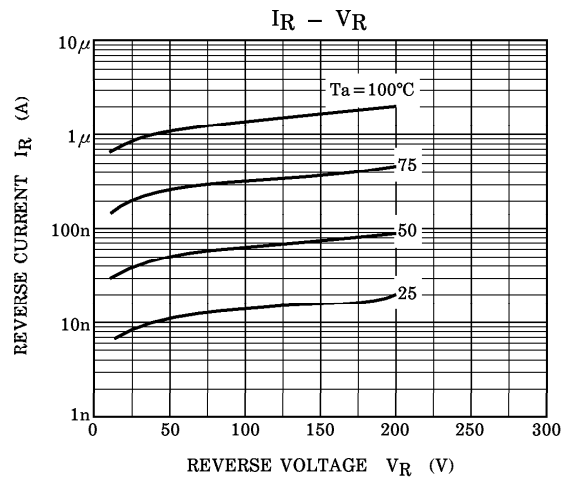
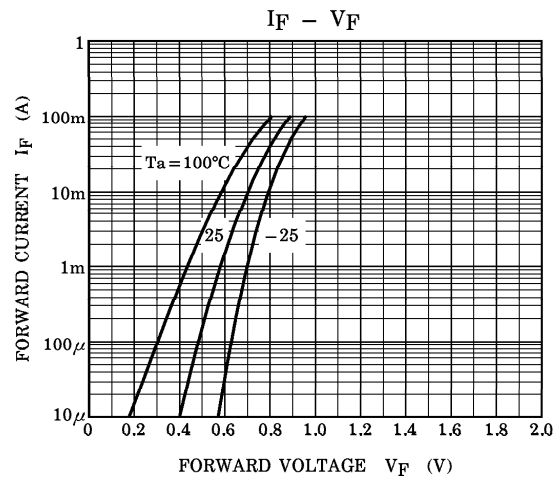


MARKING



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