

TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

# 1SS306

HIGH VOLTAGE, HIGH SPEED SWITCHING APPLICATIONS.

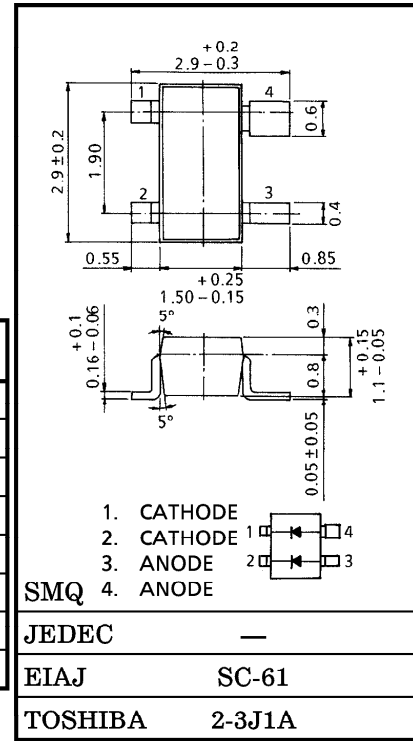
Unit in mm

- 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	$T_{stg}$	-55~125	$^\circ C$

(\*) Unit Rating. Total Rating=Unit Rating×1.5

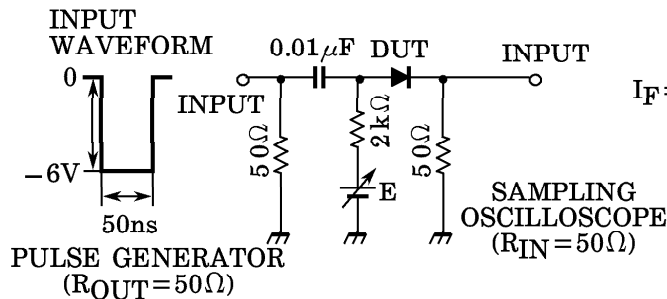


Weight : 0.013g

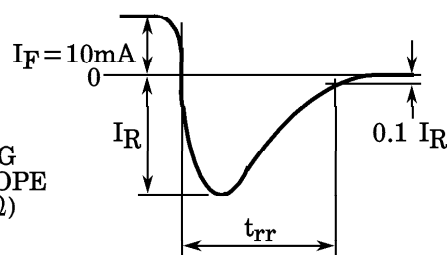
ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

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	$\mu A$
	$I_R(2)$	$V_R = 200V$	—	—	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

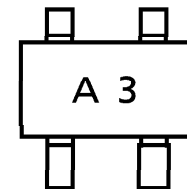
Fig.1 REVERSE RECOVERY TIME ( $t_{rr}$ ) TEST CIRCUIT



OUTPUT WAVEFORM

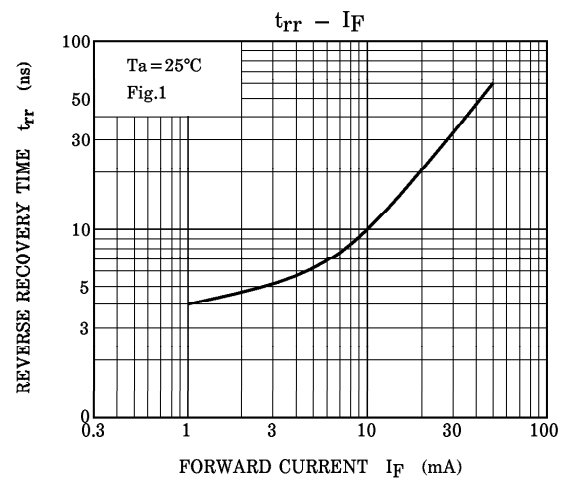
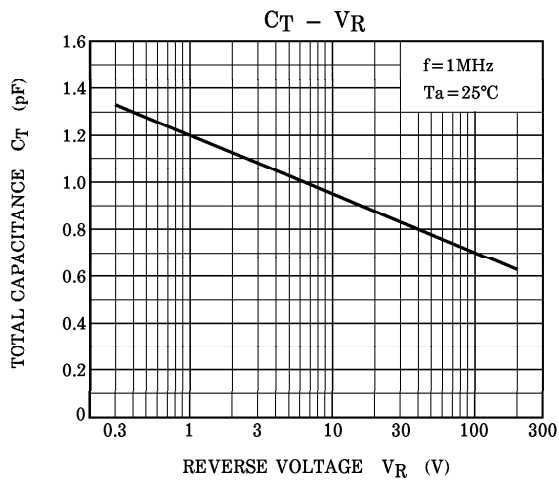
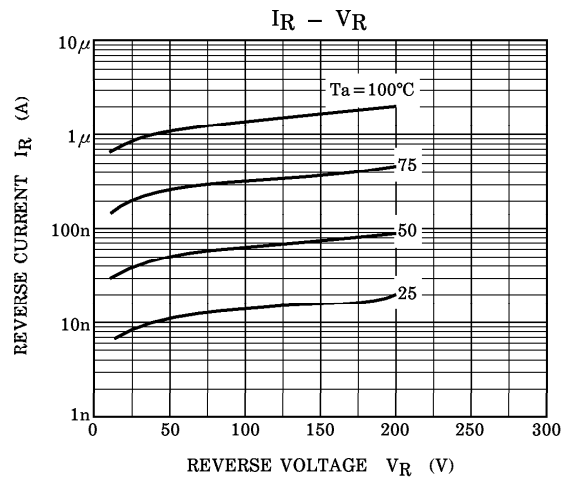
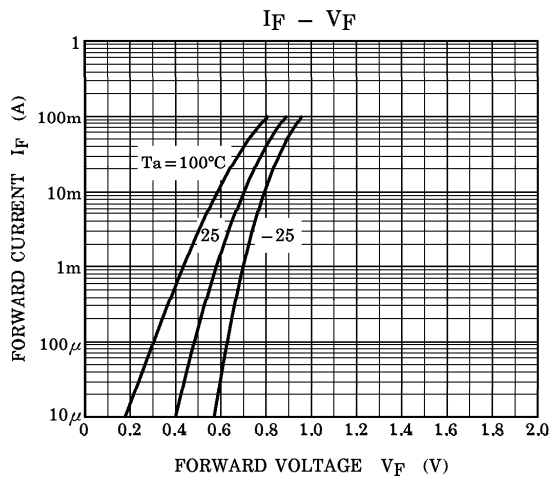


MARKING



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