

TOSHIBA DIODE SILICON EPITAXIAL SCHOTTKY BARRIER TYPE

# 1SS344

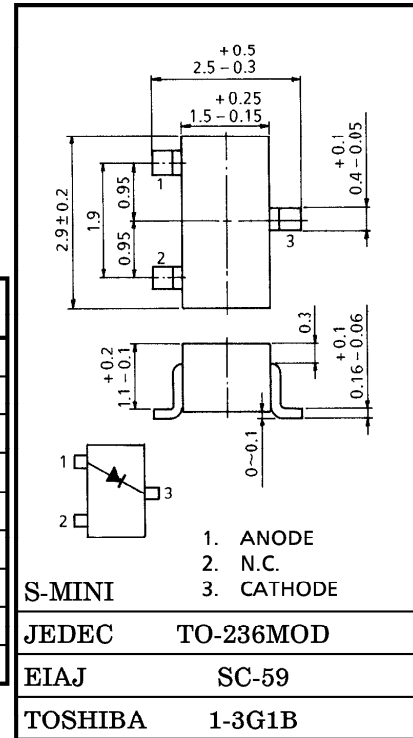
ULTRA HIGH SPEED SWITCHING APPLICATION.

Unit in mm

- Low Forward Voltage :  $V_F(3) = 0.50V$  (Typ.)
- Fast Reverse Recovery Time :  $t_{rr} = 20ns$  (Typ.)
- High Average Forward Current :  $I_O = 0.5A$  (Max.)

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Maximum (Peak) Reverse Voltage	$V_{RM}$	25	V
Reverse Voltage	$V_R$	20	V
Maximum (Peak) Forward Current	$I_{FM}$	1500	mA
Average Forward Current	$I_O$	500	mA
Surge Current (10ms)	$I_{FSM}$	5	A
Power Dissipation	P	200	mW
Junction Temperature	$T_j$	125	$^\circ C$
Storage Temperature	$T_{stg}$	-55~125	$^\circ C$
Operating Temperature	$T_{opr}$	-40~100	$^\circ C$



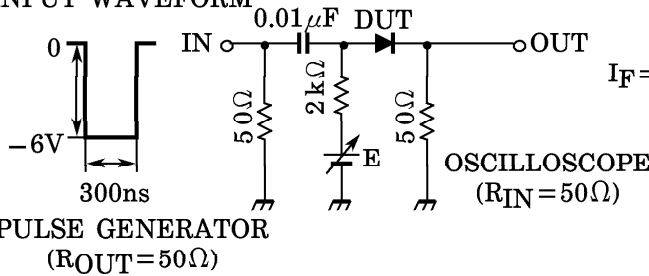
ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

Weight : 0.012g

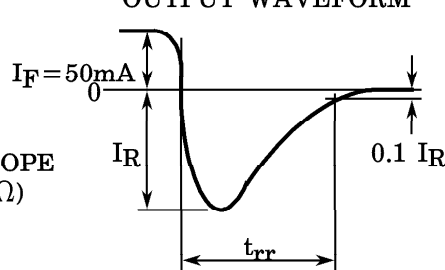
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_F(1)$	$I_F = 10mA$	—	0.30	—	V
	$V_F(2)$	$I_F = 100mA$	—	0.38	—	
	$V_F(3)$	$I_F = 500mA$	—	0.50	0.55	
Reverse Current	$I_R(1)$	$V_R = 10V$	—	—	20	$\mu A$
	$I_R(2)$	$V_R = 20V$	—	—	100	
Total Capacitance	$C_T$	$V_R = 0, f = 1MHz$	—	120	—	pF
Reverse Recovery Time	$t_{rr}$	$I_F = 50mA$ (Fig.1)	—	20	—	ns

Fig.1 Reverse Recovery time ( $t_{rr}$ ) test circuit

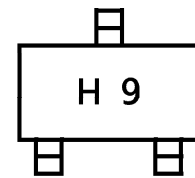
INPUT WAVEFORM



OUTPUT WAVEFORM

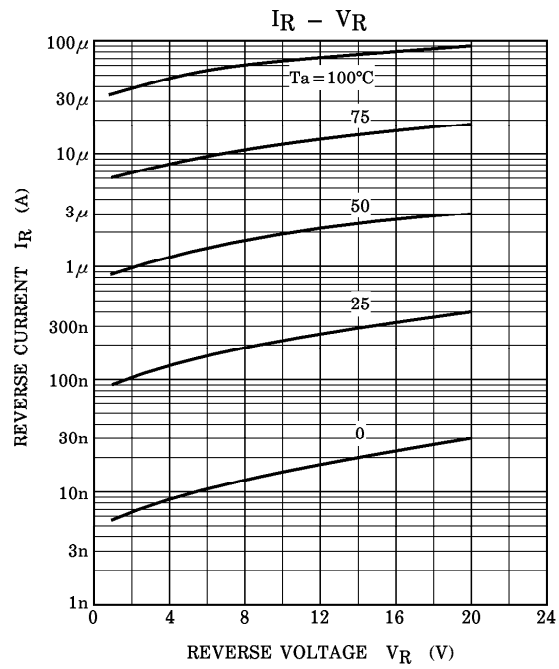
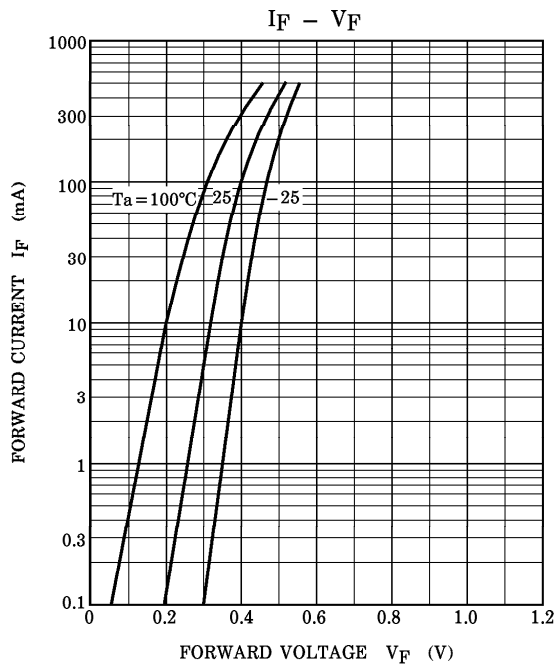


MARKING



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