

TOSHIBA DIODE SILICON EPITAXIAL SCHOTTKY BARRIER TYPE

1SS344

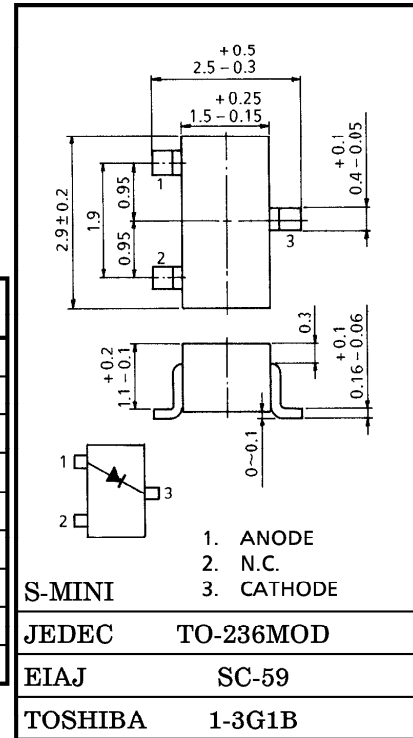
ULTRA HIGH SPEED SWITCHING APPLICATION.

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	$^\circ C$



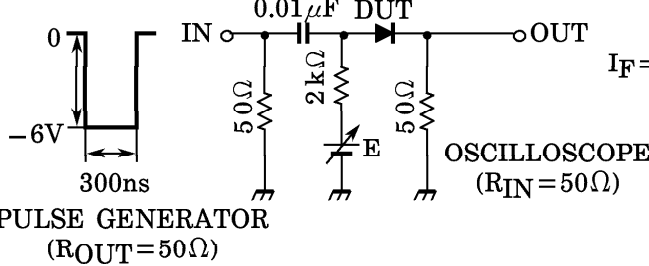
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

Weight : 0.012g

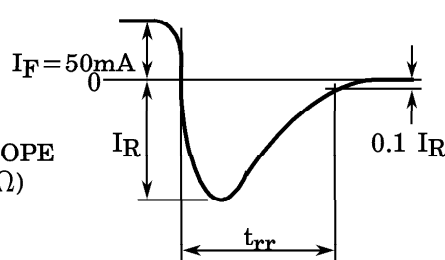
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_F(1)$	$I_F = 10mA$	—	0.30	—	V
	$V_F(2)$	$I_F = 100mA$	—	0.38	—	
	$V_F(3)$	$I_F = 500mA$	—	0.50	0.55	
Reverse Current	$I_R(1)$	$V_R = 10V$	—	—	20	μA
	$I_R(2)$	$V_R = 20V$	—	—	100	
Total Capacitance	C_T	$V_R = 0, f = 1MHz$	—	120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

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

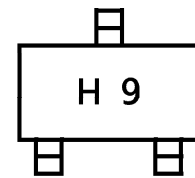
INPUT WAVEFORM



OUTPUT WAVEFORM

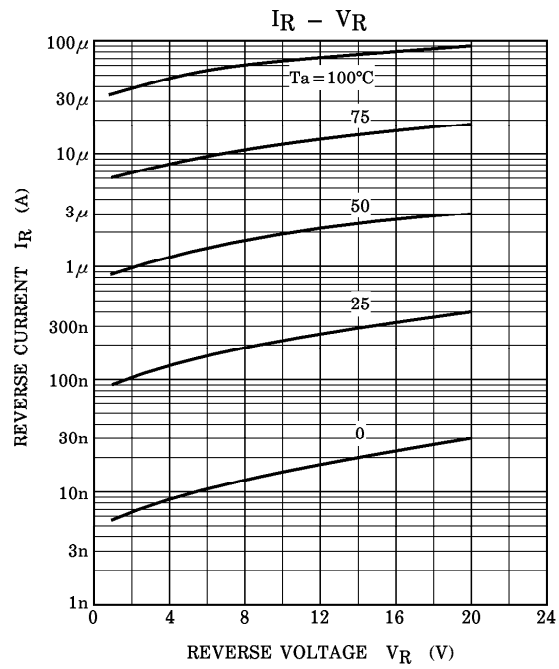
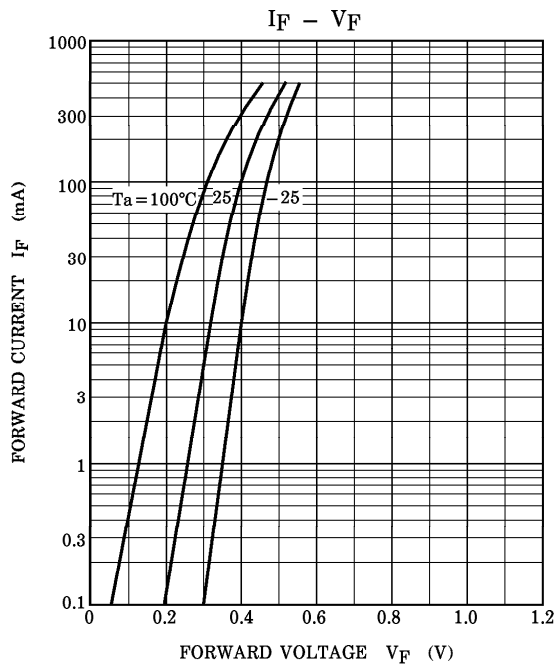


MARKING



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