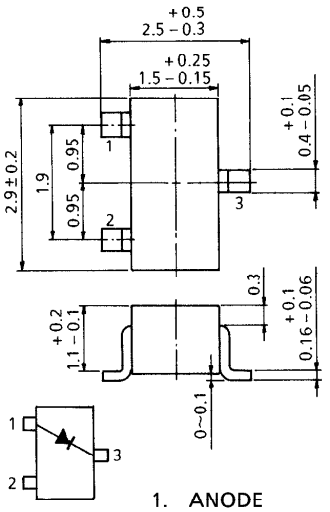
TOSHIBA DIODE SILICON EPITAXIAL SCHOTTKY BARRIER TYPE

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.)



S-MINI	
JEDEC	TO-236MOD
EIAJ	SC-59
TOSHIBA	1-3G1B

Weight : 0.012g

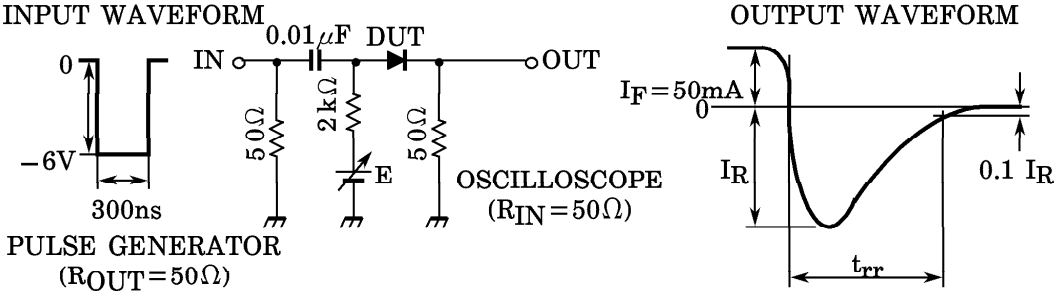
MAXIMUM RATINGS (Ta = 25°C)

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	°C
Storage Temperature	T_{stg}	−55~125	°C
Operating Temperature	T_{opr}	−40~100	°C

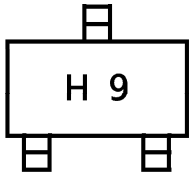
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

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



MARKING



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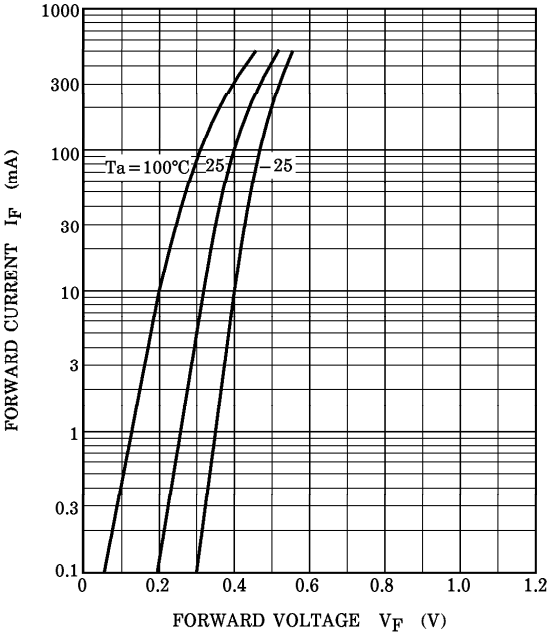
$I_F - V_F$



$I_R - V_R$