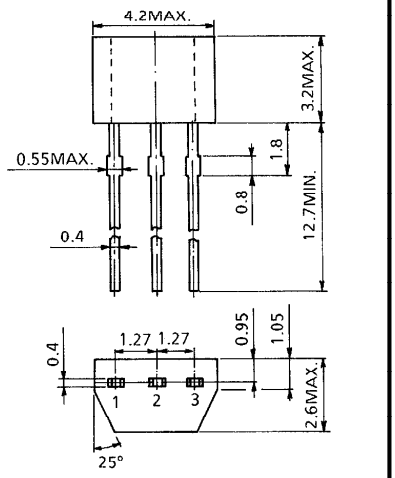
TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

1SS201

ULTRA HIGH SPEED SWITCHING APPLICATION.

Unit in mm

- Low Forward Voltage : $V_{F(3)}=0.9V$ (Typ.)
- Fast Reverse Recovery Time : $t_{rr}=1.6ns$ (Typ.)
- Small Total Capacitance : $C_T=0.9pF$ (Typ.)



1. ANODE 1
2. CATHODE 1, 2
3. ANODE 2

JEDEC	—
EIAJ	—
TOSHIBA	1-4E2A

Weight : 0.13g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Maximum (Peak) Reverse Voltage	V_{RM}	85	V
Reverse Voltage	V_R	80	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	200	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	−55~125	°C

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

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_{F(1)}$	$I_F=1mA$	—	0.60	—	V
	$V_{F(2)}$	$I_F=10mA$	—	0.72	—	
	$V_{F(3)}$	$I_F=100mA$	—	0.90	1.20	
Reverse Current	$I_{R(1)}$	$V_R=30V$	—	—	0.1	μA
	$I_{R(2)}$	$V_R=80V$	—	—	0.5	
Total Capacitance	C_T	$V_R=0$, f=1MHz	—	0.9	3.0	pF
Reverse Recovery Time	t_{rr}	$I_F=10mA$ (Fig.1)	—	1.6	4.0	ns

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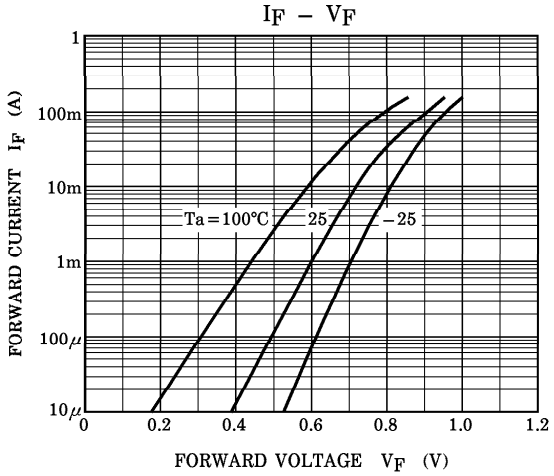

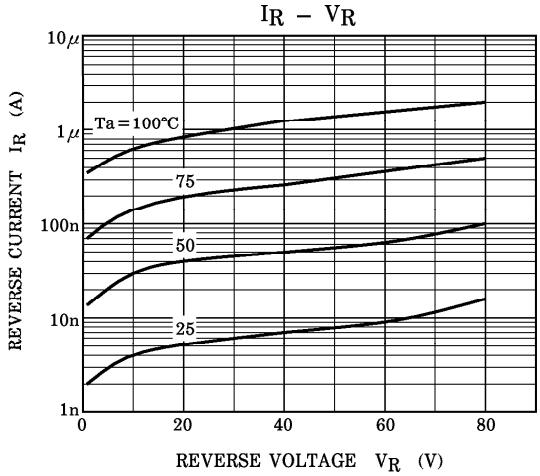

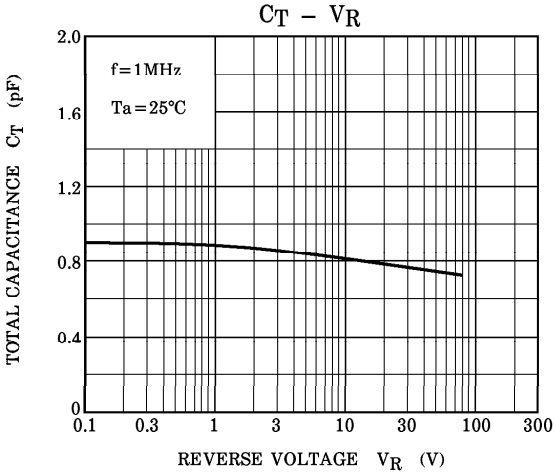

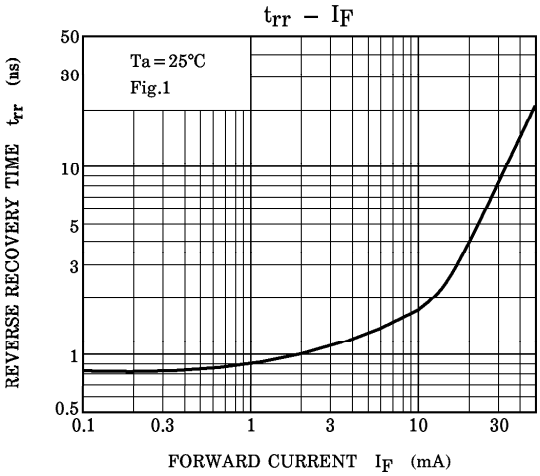

Fig.1 Reverse recovery time (t_{rr}) test circuit