

TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

# 1SS201

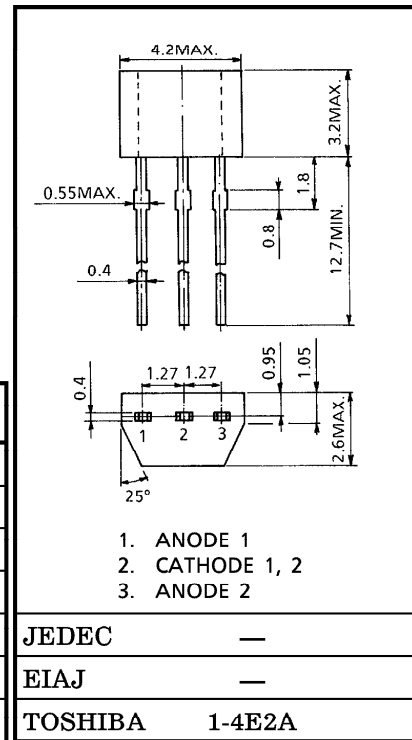
ULTRA HIGH SPEED SWITCHING APPLICATION.

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.)

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

| 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     | $^\circ C$ |
| Storage Temperature Range      | $T_{stg}$ | -55~125 | $^\circ C$ |



|         |        |
|---------|--------|
| JEDEC   | —      |
| EIAJ    | —      |
| TOSHIBA | 1-4E2A |

Weight : 0.13g

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

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

| 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  | $\mu A$ |
|                       | $I_R(2)$ | $V_R = 80V$          | —    | —    | 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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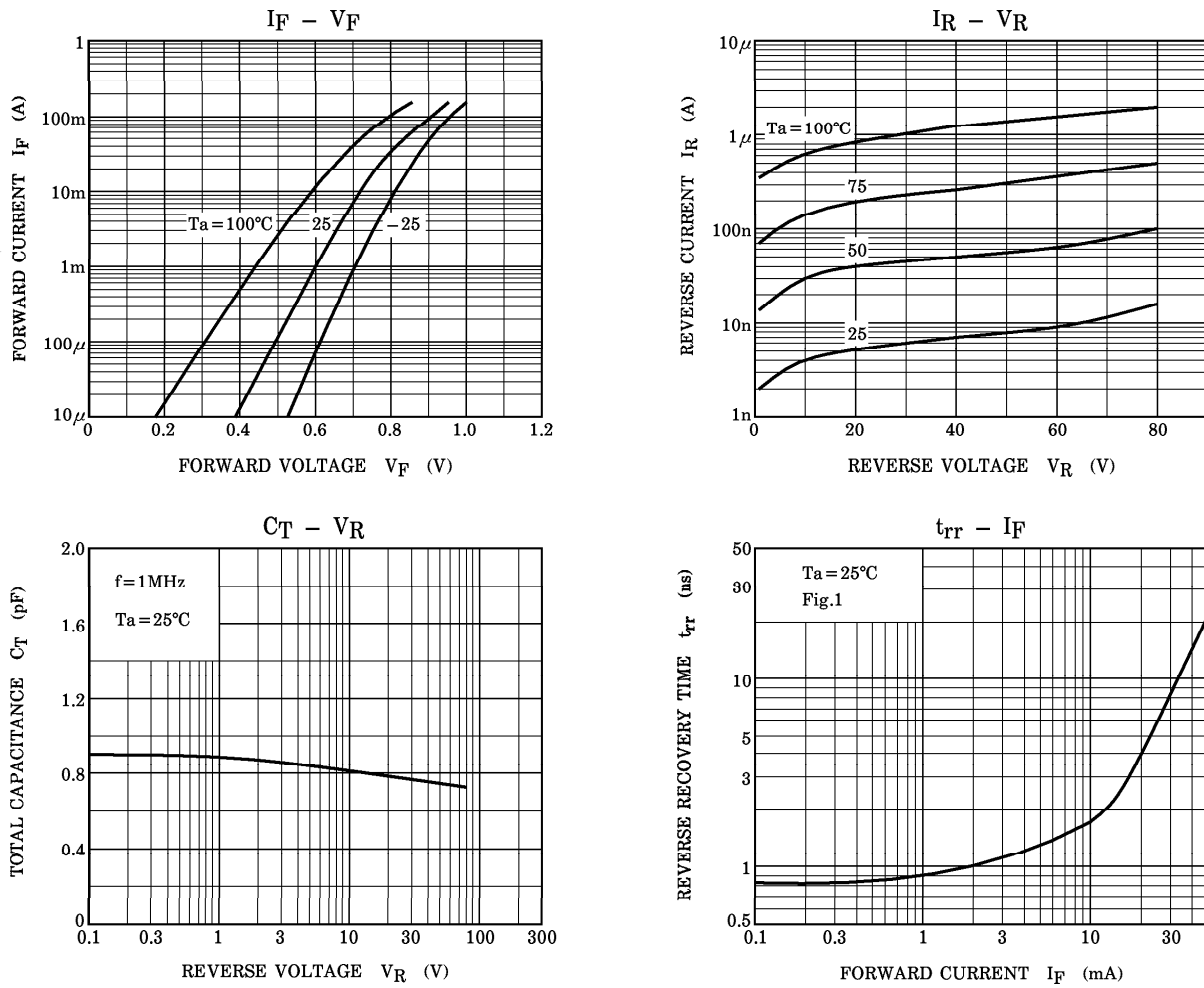


Fig.1 Reverse recovery time ( $t_{rr}$ ) test circuit

