

TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

1SS250

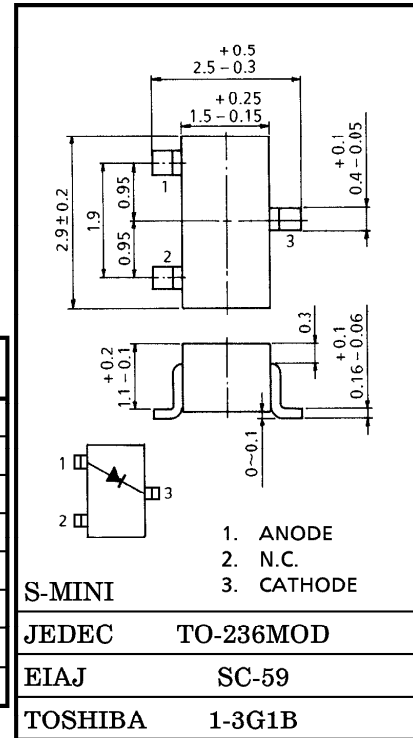
HIGH SPEED SWITCHING APPLICATIONS.

Unit in mm

- Low Forward Voltage :  $V_F(2) = 0.90V$  (Typ.)
- Fast Reverse Recovery Time :  $t_{rr} = 60ns$  (Max.)
- Small Total Capacitance :  $C_T = 1.5pF$  (Typ.)
- Small Package : SC-59

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

| CHARACTERISTIC            | SYMBOL    | RATING         | UNIT       |
|---------------------------|-----------|----------------|------------|
| Peak Reverse Voltage      | $V_{RM}$  | 250            | V          |
| Reverse Voltage           | $V_R$     | 200            | V          |
| Peak Forward Current      | $I_{FM}$  | 300            | mA         |
| Average Forward Current   | $I_O$     | 100            | mA         |
| Surge Current (10ms)      | $I_{FSM}$ | 2              | A          |
| Power Dissipation         | P         | 150            | mW         |
| Junction Temperature      | $T_j$     | 125            | $^\circ C$ |
| Storage Temperature Range | $T_{stg}$ | $-55 \sim 125$ | $^\circ C$ |



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

Weight : 0.012g

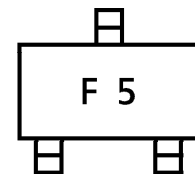
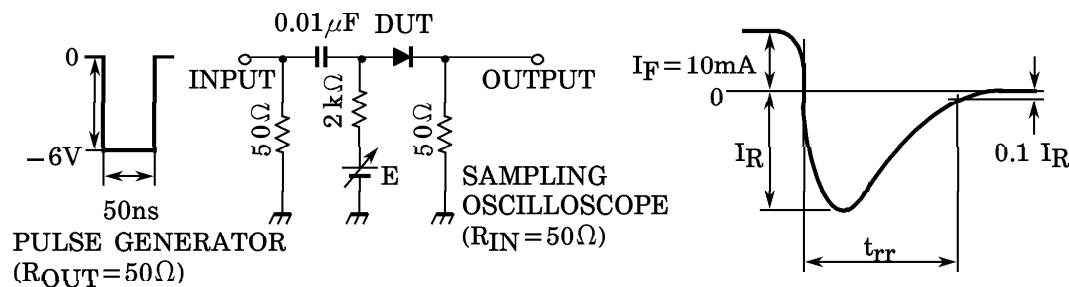
| CHARACTERISTIC        | SYMBOL   | TEST CONDITION       | MIN. | TYP. | MAX. | UNIT    |
|-----------------------|----------|----------------------|------|------|------|---------|
| Forward Voltage       | $V_F(1)$ | $I_F = 10mA$         | —    | 0.72 | 1.00 | V       |
|                       | $V_F(2)$ | $I_F = 100mA$        | —    | 0.90 | 1.20 |         |
| Reverse Current       | $I_R(1)$ | $V_R = 50V$          | —    | —    | 0.1  | $\mu A$ |
|                       | $I_R(2)$ | $V_R = 200V$         | —    | —    | 1.0  |         |
| Total Capacitance     | $C_T$    | $V_R = 0, f = 1MHz$  | —    | 1.5  | 3.0  | pF      |
| Reverse Recovery Time | $t_{rr}$ | $I_F = 10mA$ (Fig.1) | —    | 10   | 60   | ns      |

Fig1. REVERSE RECOVERY TIME ( $t_{rr}$ ) TEST CIRCUIT

MARKING

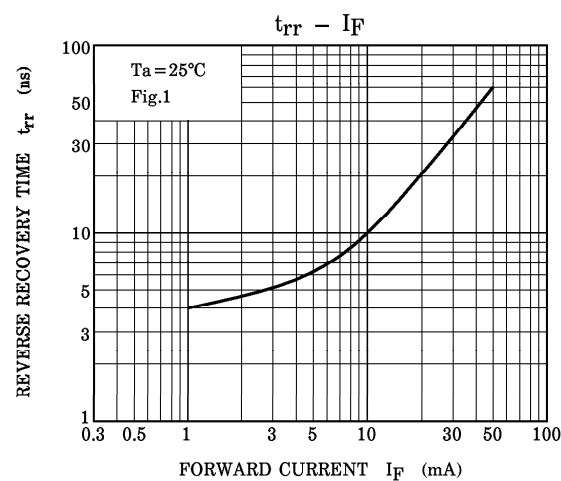
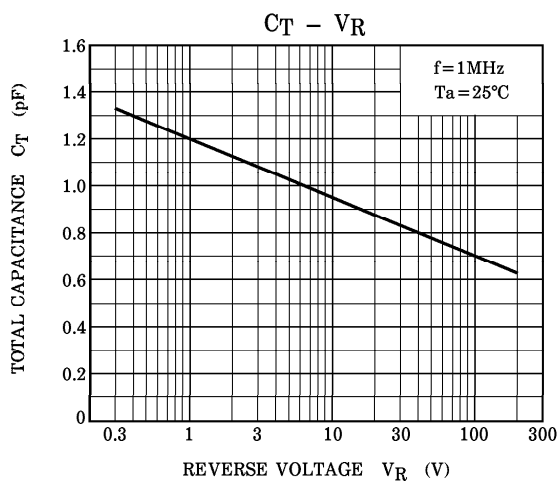
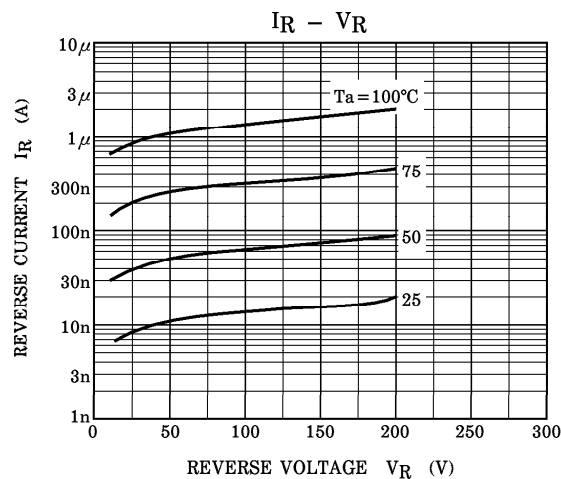
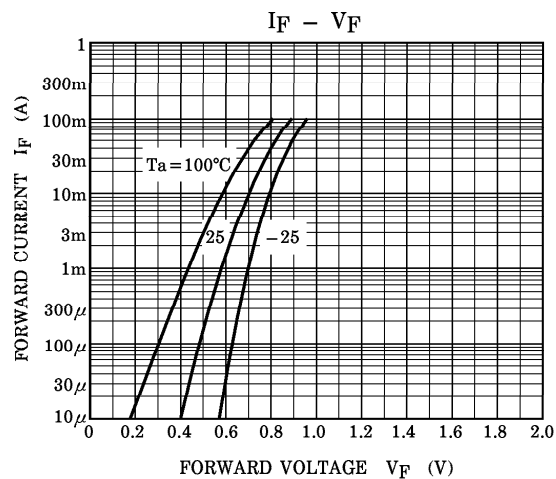
INPUT WAVEFORM

OUTPUT WAVEFORM



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