

TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

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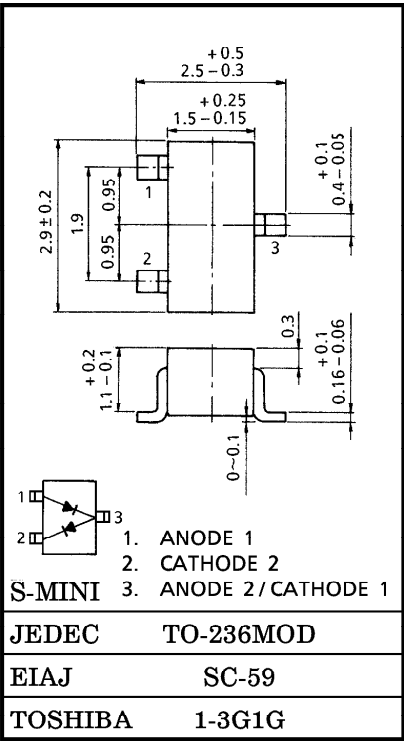
ULTRA HIGH SPEED SWITCHING APPLICATION.

Unit in mm

- Small Package : SC-59
- 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 (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 | 150 | mW |
| Junction Temperature | T_j | 125 | °C |
| Storage Temperature Range | T_{stg} | -55~125 | °C |

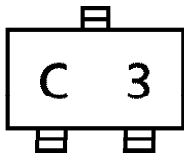


(*) Unit Rating. Total Rating=Unit Rating×0.7.

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

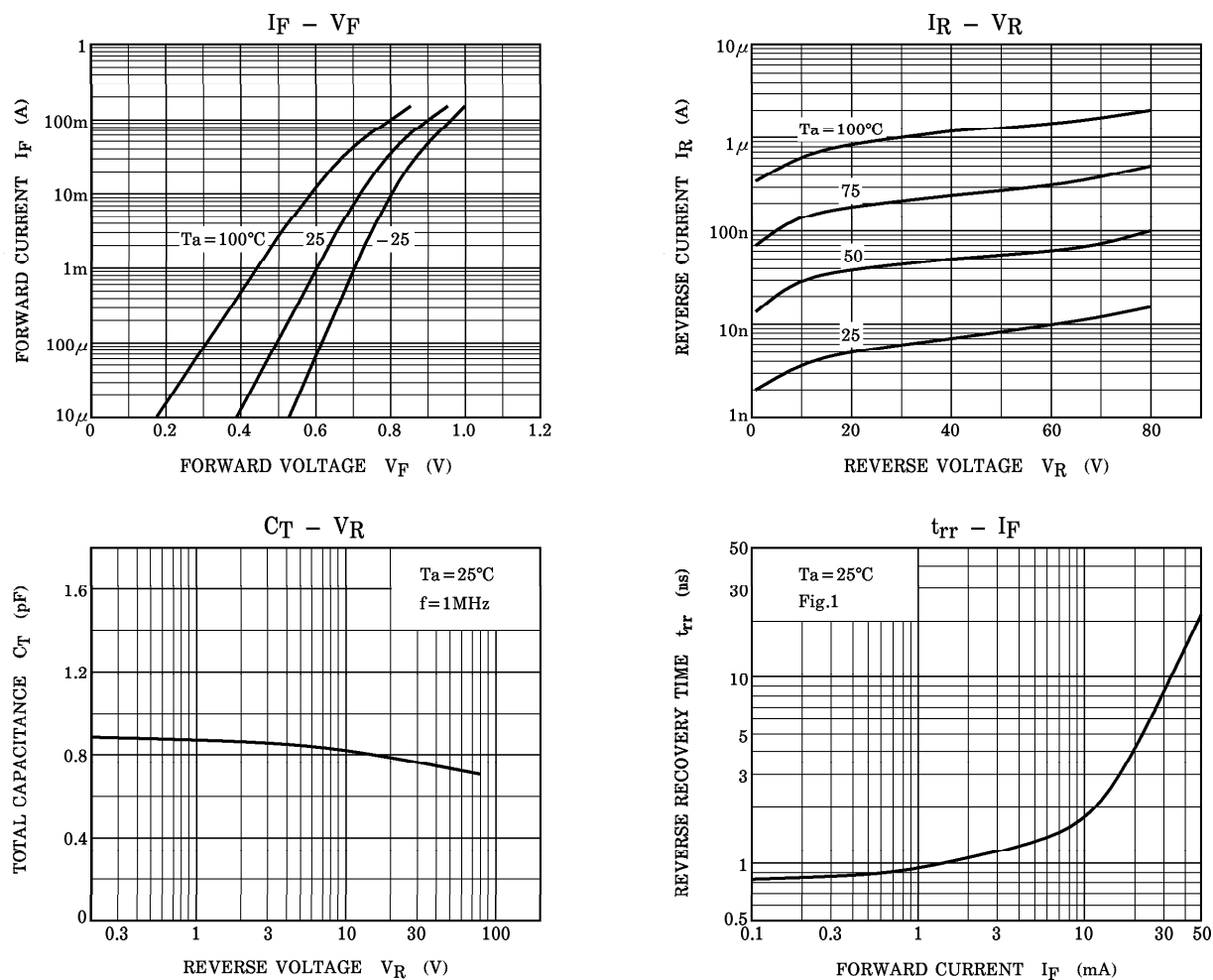
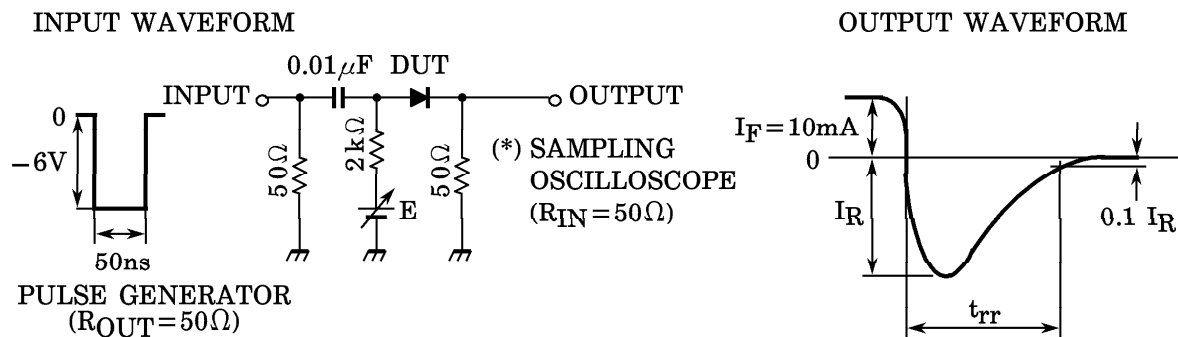
| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|-----------------------|----------|--------------------|------|------|------|---------|
| Forward Voltage | $V_F(1)$ | $I_F=1mA$ | — | 0.60 | — | V |
| | $V_F(2)$ | $I_F=10mA$ | — | 0.72 | — | |
| | $V_F(3)$ | $I_F=100mA$ | — | 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 |

MARKING



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

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