

TOSHIBA DIODE SILICON EPITAXIAL PLANAR DIODE

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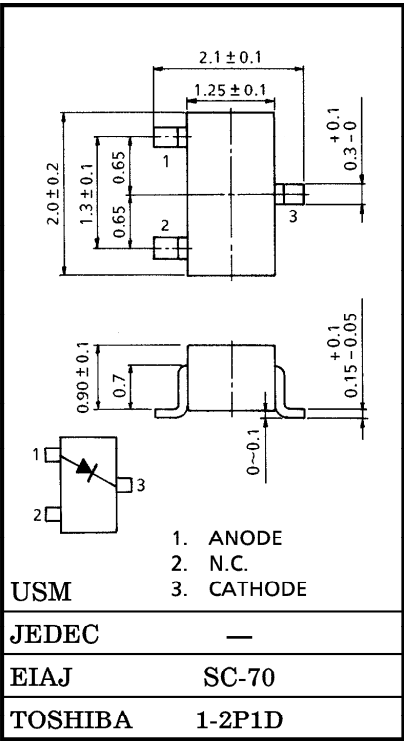
HIGH VOLTAGE, HIGH SPEED SWITCHING APPLICATIONS.

Unit in mm

- Low Forward Voltage : $V_F=1.0V$ (Typ.)
- High Voltage : $V_R=400V$ (Min.)
- Fast Reverse Recovery Time : $t_{rr}=0.5\mu s$ (Typ.)
- Small Total Capacitance : $C_T=2.5pF$ (Typ.)
- Small Package : SC-70

MAXIMUM RATINGS (Ta = 25°C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|--------------------------------|-----------|---------|------|
| Maximum (Peak) Reverse Voltage | V_{RM} | 420 | V |
| Reverse Voltage | V_R | 400 | 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 | 100 | mW |
| Junction Temperature | T_j | 125 | °C |
| Storage Temperature Range | T_{stg} | -55~125 | °C |



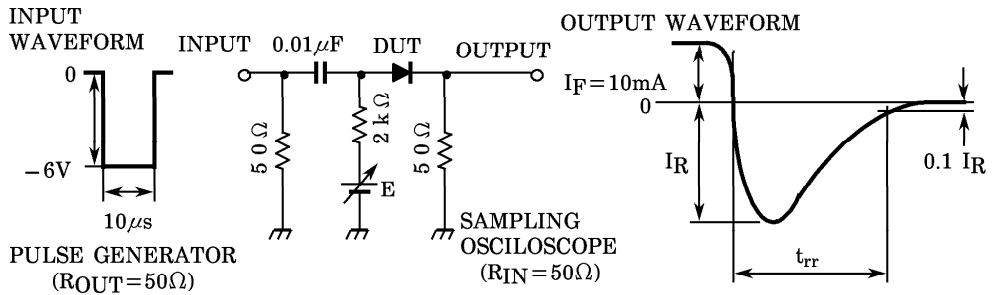
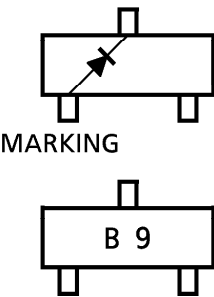
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

Weight : 0.006g

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|-----------------------|-----------|--------------------|------|------|------|---------|
| Forward Voltage | V_F (1) | $I_F=10mA$ | — | 0.8 | — | V |
| | V_F (2) | $I_F=100mA$ | — | 1.0 | 1.3 | |
| Reverse Current | I_R (1) | $V_R=300V$ | — | — | 0.1 | μA |
| | I_R (2) | $V_R=400V$ | — | — | 1.0 | |
| Total Capacitance | C_T | $V_R=0, f=1MHz$ | — | 2.5 | 5.0 | pF |
| Reverse Recovery Time | t_{rr} | $I_F=10mA$ (Fig.1) | — | 0.5 | — | μs |

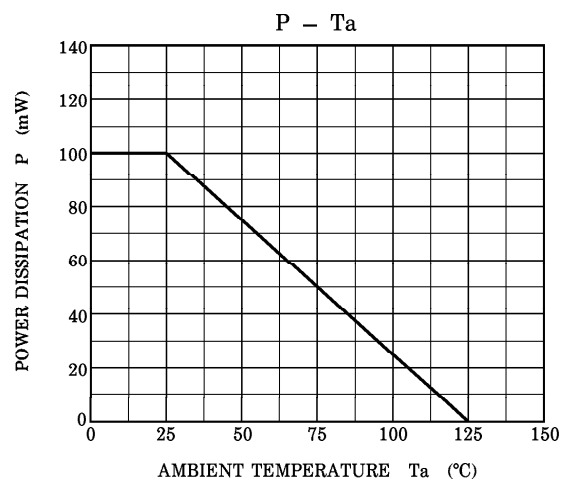
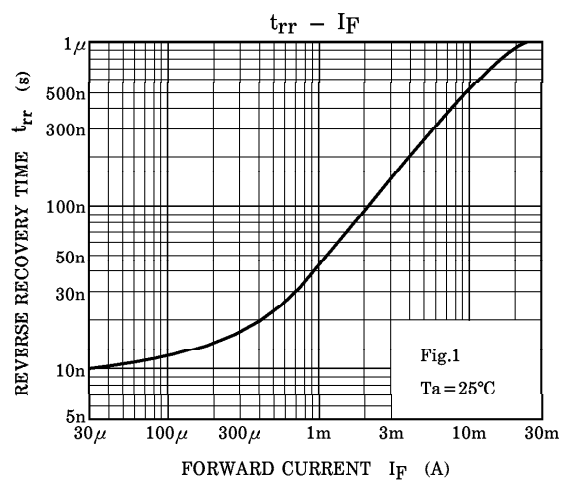
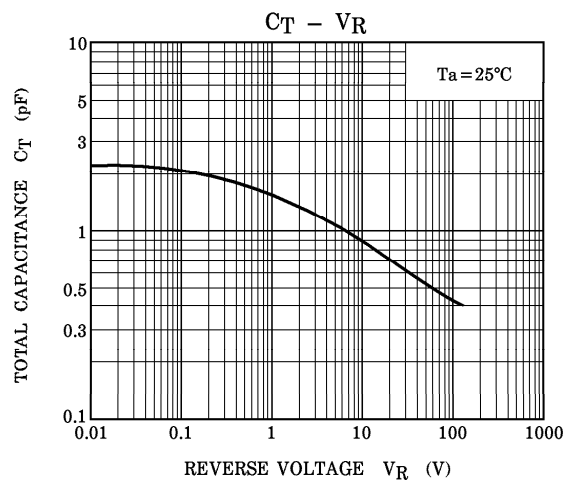
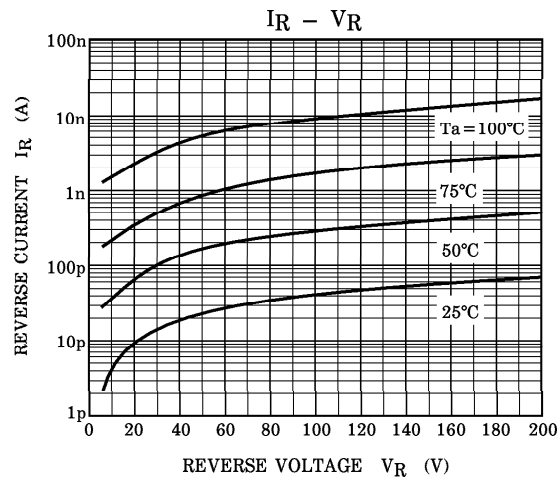
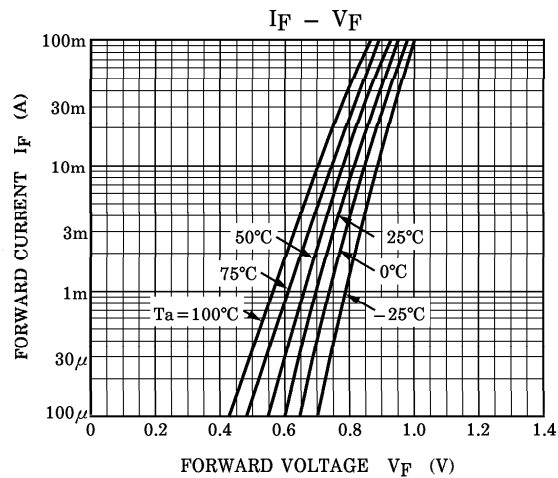
EQUIVALENT CIRCUIT (TOP VIEW)

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



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