

1SS398

High Voltage, High Speed Switching Applications

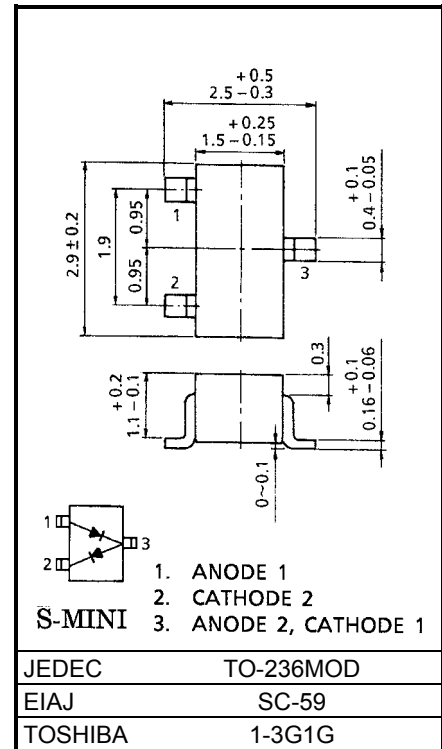
Unit: mm

- 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-59

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 | 150 | mW |
| Junction temperature | T_j | 125 | °C |
| Storage temperature range | T_{stg} | -55~125 | °C |

* : Unit rating. Total rating = unit rating × 0.7

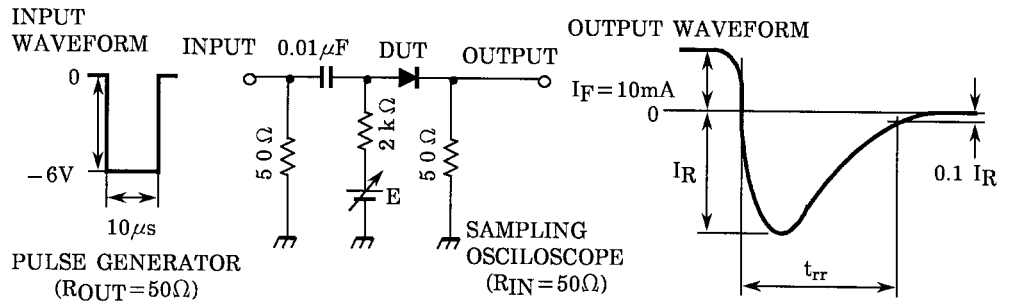
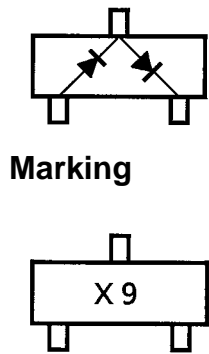


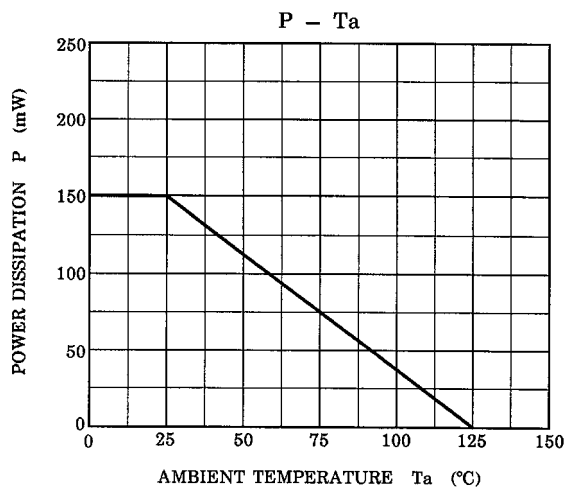
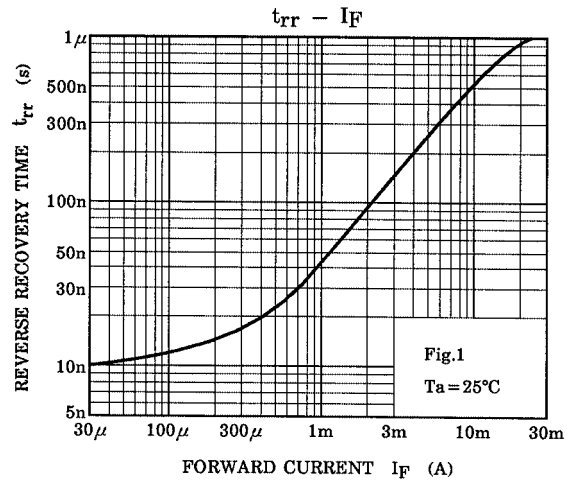
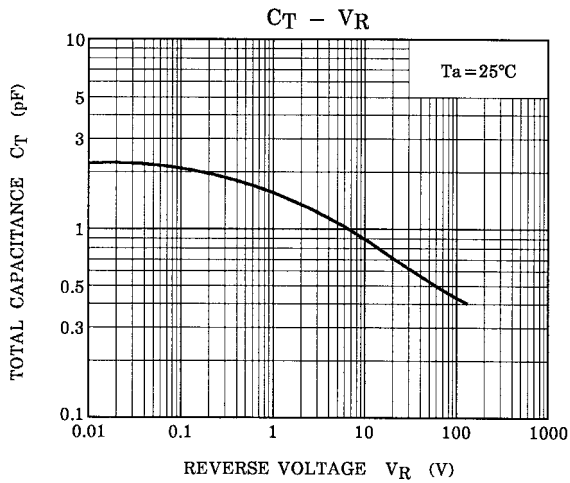
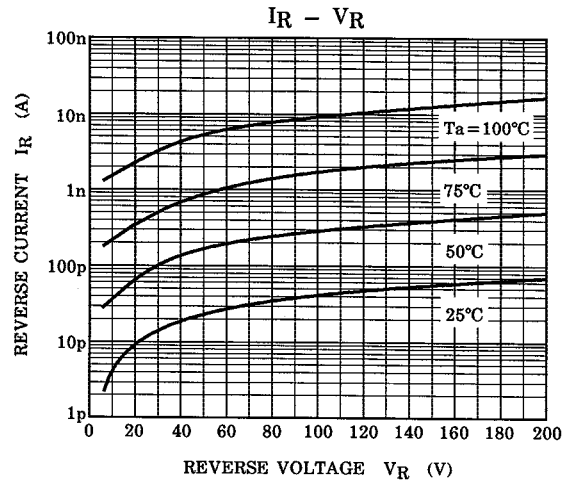
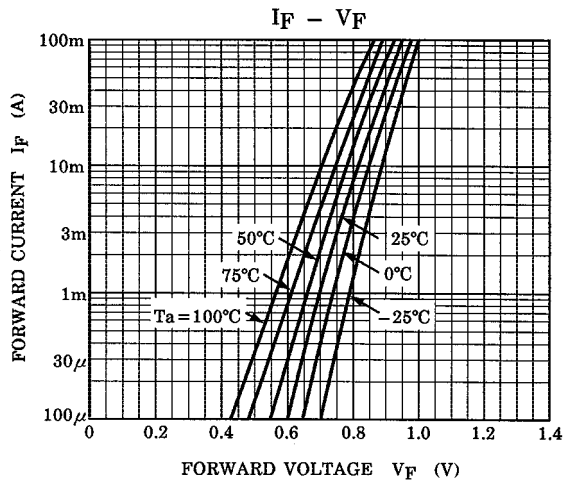
Electrical Characteristics (Ta = 25°C)

| Characteristic | Symbol | Test Circuit | 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)

Fig.1 Reverse Recovery Time (t_{rr}) Test Circuit





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