

TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

1SS306

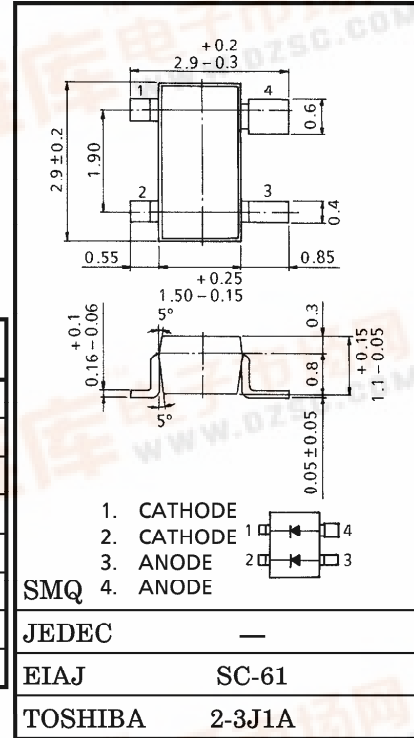
HIGH VOLTAGE, HIGH SPEED SWITCHING APPLICATIONS.

Unit in mm

- Low Forward Voltage : $V_F(2) = 0.90V$ (Typ.)
- Fast Reverse Recovery Time : $t_{rr} = 30ns$ (Max.)
- Small Total Capacitance : $C_T = 1.5pF$ (Typ.)
- Small Package : SC-61

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

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|--------------------------------|-----------|---------|------------|
| Maximum (Peak) Reverse Voltage | V_{RM} | 250 | V |
| Reverse Voltage | V_R | 200 | 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 | $^\circ C$ |
| Storage Temperature Range | T_{stg} | -55~125 | $^\circ C$ |



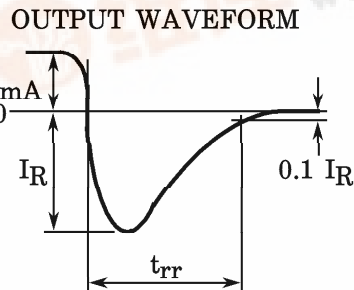
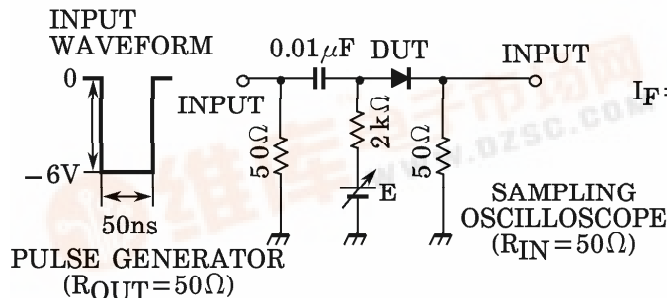
(*) Unit Rating. Total Rating = Unit Rating × 1.5

Weight : 0.013g

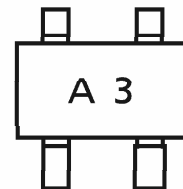
ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|-----------------------|----------|---------------------|------|------|------|---------|
| Forward Voltage | $V_F(1)$ | $I_F = 10mA$ | — | 0.72 | 1.0 | V |
| | $V_F(2)$ | $I_F = 100mA$ | — | 0.9 | 1.2 | |
| Reverse Current | $I_R(1)$ | $V_R = 50V$ | — | — | 0.1 | μA |
| | $I_R(2)$ | $V_R = 200V$ | — | — | 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 | — | 30 | 60 | ns |

Fig.1 REVERSE RECOVERY TIME (t_{rr}) TEST CIRCUIT



MARKING



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