

TOSHIBA TRANSISTOR SILICON PNP TRIPLE DIFFUSED TYPE

2SA1925

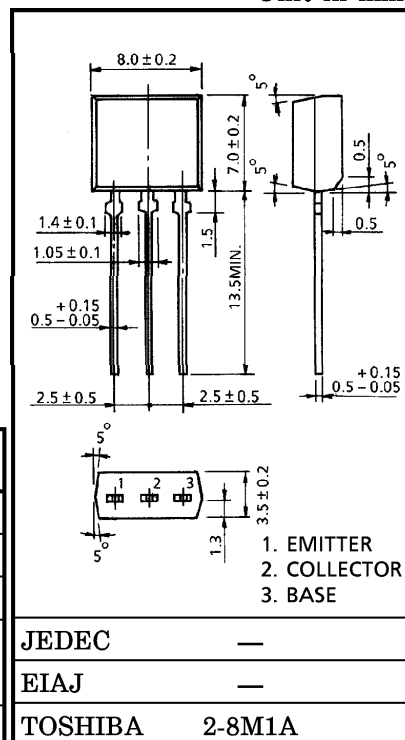
HIGH VOLTAGE SWITCHING APPLICATIONS

Unit in mm

- High Voltage : $V_{CEO} = -400V$
- Low Saturation Voltage : $V_{CE(sat)} = -1V$ (Max.)
($I_C = -100mA, I_B = -10mA$)
- Collector Metal (Fin) is Fully Covered with Mold Resin

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

| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|-----------------------------|-------|-----------|---------|------------|
| Collector-Base Voltage | | V_{CBO} | -400 | V |
| Collector-Emitter Voltage | | V_{CEO} | -400 | V |
| Emitter-Base Voltage | | V_{EBO} | -7 | V |
| Collector Current | DC | I_C | -0.5 | A |
| | Pulse | I_{CP} | -1 | |
| Base Current | | I_B | -0.25 | A |
| Collector Power Dissipation | | P_C | 1.3 | W |
| Junction Temperature | | T_j | 150 | $^\circ C$ |
| Storage Temperature Range | | T_{stg} | -55~150 | $^\circ C$ |



Weight : 0.55g

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|-------------------------------------|-------------------|---------------|--|------|-------|------|---------|
| Collector Cut-off Current | | I_{CBO} | $V_{CB} = -400V, I_E = 0$ | — | — | -10 | μA |
| Emitter Cut-off Current | | I_{EBO} | $V_{EB} = -7V, I_C = 0$ | — | — | -1 | μA |
| Collector-Emitter Breakdown Voltage | | $V_{(BR)CEO}$ | $I_C = -10mA, I_B = 0$ | -400 | — | — | V |
| DC Current Gain | | $h_{FE(1)}$ | $V_{CE} = -5V, I_C = -20mA$ | 140 | — | 450 | |
| | | $h_{FE(2)}$ | $V_{CE} = -5V, I_C = -100mA$ | 140 | — | 400 | |
| Saturation Voltage | Collector-Emitter | $V_{CE(sat)}$ | $I_C = -100mA, I_B = -10mA$ | — | -0.4 | -1.0 | V |
| | Base-Emitter | $V_{BE(sat)}$ | $I_C = -100mA, I_B = -10mA$ | — | -0.76 | -0.9 | |
| Transition Frequency | | f_T | $V_{CE} = -5V, I_C = -50mA$ | — | 35 | — | MHz |
| Collector Output Capacitance | | C_{ob} | $V_{CB} = -10V, I_E = 0, f = 1MHz$ | — | 18 | — | pF |
| Switching Time | Turn-on Time | t_{on} | <p> $20\mu s$ INPUT I_{B1} OUTPUT I_{B1} I_{B2} $2k\Omega$ $V_{CC} = -200V$ $I_{B1} = 10mA, I_{B2} = 20mA,$ DUTY CYCLE $\leq 1\%$ </p> | — | 0.2 | — | μs |
| | Storage Time | t_{stg} | | — | 2.3 | — | μs |
| | Fall Time | t_f | | — | 0.2 | — | μs |

