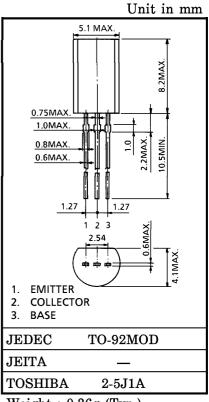
TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2 S C 2 6 5 5

POWER AMPLIFIER APPLICATIONS POWER SWITCHING APPLICATIONS

- Low Saturation Voltage
 - : $V_{CE (sat)} = 0.5V (Max.) (I_C = 1A)$
- High Speed Switching Time : $t_{stg} = 1.0 \mu s$ (Typ.)
- Complementary to 2SA1020.



Weight: 0.36g (Typ.)

MAXIMUM RATINGS (Ta = 25°C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|--------------------|---------|----------------------|
| Collector-Base Voltage | v_{CBO} | 50 | V |
| Collector-Emitter Voltage | v_{CEO} | 50 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current | $I_{\mathbf{C}}$ | 2 | Α |
| Base Current | $I_{\mathbf{B}}$ | 0.5 | Α |
| Collector Power Dissipation | PC | 900 | mW |
| Junction Temperature | T_j | 150 | $^{\circ}\mathrm{C}$ |
| Storage Temperature Range | $\mathrm{T_{stg}}$ | -55~150 | $^{\circ}\mathrm{C}$ |

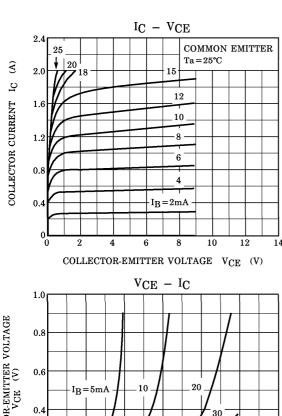
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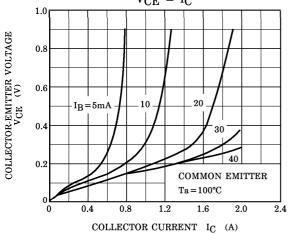
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

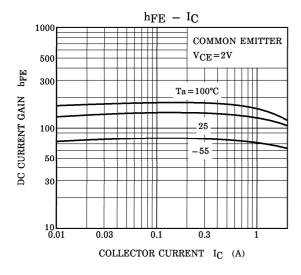
| CHARA | CTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--|-------------------|-------------------------------|--|------|------|------|----------------|
| Collector Cut-off Current | | I_{CBO} | $V_{CB} = 50V, I_{E} = 0$ | _ | _ | 1.0 | μ A |
| Emitter Cut-off Current | | $I_{ m EBO}$ | $V_{EB}=5V, I_C=0$ | _ | _ | 1.0 | μ A |
| Collector-Emitter Breakdown Voltage | | V (BR) CEO | $I_{\rm C}$ =10mA, $I_{\rm B}$ =0 | 50 | _ | _ | V |
| DC Current Gain | | h _{FE (1)} (Note) | $V_{ m CE}\!=\!2V,~I_{ m C}\!=\!0.5A$ | 70 | _ | 240 | |
| | | h _{FE (2)} | $V_{CE} = 2V, I_{C} = 1.5A$ | 40 | _ | _ | |
| Saturation Voltage | Collector-Emitter | VCE (sat) | $I_C = 1A, I_B = 0.05A$ | 1 | _ | 0.5 | V |
| | Base-Emitter | V _{BE (sat)} | $I_C = 1A, I_B = 0.05A$ | ı | _ | 1.2 | |
| Transition Frequency | | ${ m f_T}$ | $V_{CE} = 2V, I_{C} = 0.5A$ | ı | 100 | _ | MHz |
| Collector Output Capacitance | | C_{ob} | $V_{CB} = 10V, I_E = 0, f = 1MHz$ | 1 | 30 | _ | pF |
| Switching Time | Turn-on Time | t _{on} | $I_{B1} \prod_{PUT} I_{B2} \prod_{g} OUTPUT$ $I_{B2} \prod_{g} OUTPUT$ $I_{B2} \prod_{g} OUTPUT$ $I_{B2} \prod_{g} OUTPUT$ | | 0.1 | _ | |
| | Storage Time | $t_{	ext{stg}}$ | | _ | 1.0 | _ | μs |
| | Fall Time | tf | $I_{B1} = -I_{B2} = 0.05A$, DUTY CYCLE $\leq 1\%$ | | 0.1 | _ | |

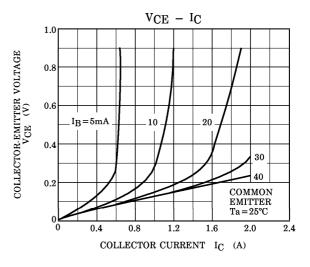
Note : $h_{\mbox{FE}\,(1)}$ Classification O : 70~140, Y : 120~240

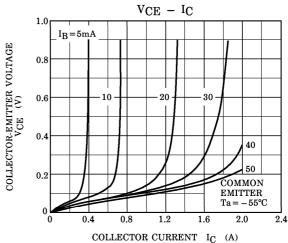
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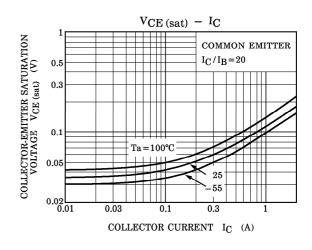




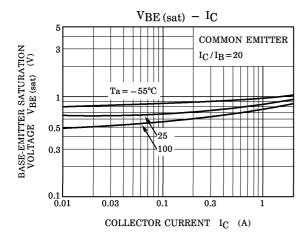


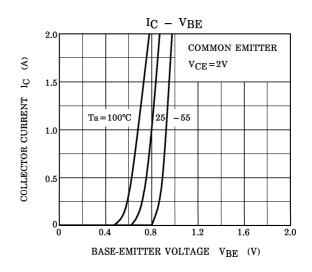


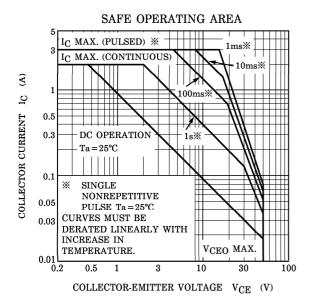


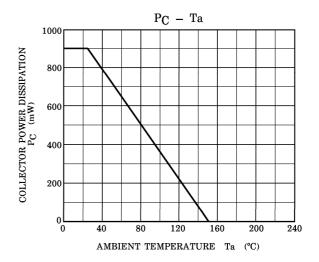


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