

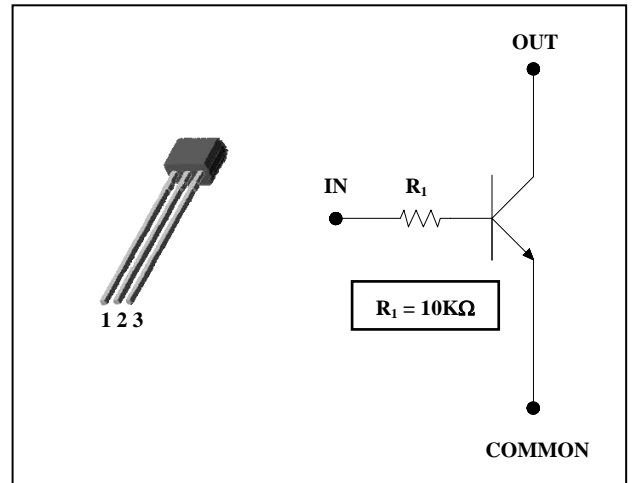
Descriptions

- Switching application
- Interface circuit and driver circuit application

Features

- With built-in bias resistor
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- High packing density

PIN Connection



Ordering Information

| Type NO. | Marking | Package Code |
|----------|---------|--------------|
| SRC1211M | 1211 | T0-92M |

Absolute Maximum Ratings

(Ta=25°C)

| Characteristic | Symbol | Rating | Unit |
|---------------------------|-----------|-----------|------|
| Output voltage | V_O | 50 | V |
| Input voltage | V_I | 30, -5 | V |
| Output current | I_O | 100 | mA |
| Power dissipation | P_D | 400 | mW |
| Junction temperature | T_J | 150 | °C |
| Storage temperature range | T_{stg} | -55 ~ 150 | °C |

Electrical Characteristics

(Ta=25°C)

| Characteristic | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|--------------------------------|--------------|----------------------------|------|------|------|------|
| Output cut-off current | $I_{O(OFF)}$ | $V_O=50V, V_I=0$ | - | - | 500 | nA |
| DC current gain | G_I | $V_O=5V, I_O=10mA$ | 120 | - | - | - |
| Output voltage | $V_{O(ON)}$ | $I_O=10mA, I_I=0.5mA$ | - | 0.1 | 0.3 | V |
| Input voltage (ON) | $V_{I(ON)}$ | $V_O=0.2V, I_O=5mA$ | - | 0.9 | 1.4 | V |
| Input voltage (OFF) | $V_{I(OFF)}$ | $V_O=5V, I_O=0.1mA$ | 0.3 | 0.55 | - | V |
| Transition frequency | f_T^* | $V_O=10V, I_O=5mA, f=1MHz$ | - | 200 | - | MHz |
| Input current | I_I | $V_I=5V, I_O=0$ | - | - | 0.88 | mA |
| Input resistor (Input to base) | R_1 | - | 7 | 10 | 13 | KΩ |

* : Characteristic of transistor only

Electrical Characteristic Curves

Fig. 1 $P_D - T_a$

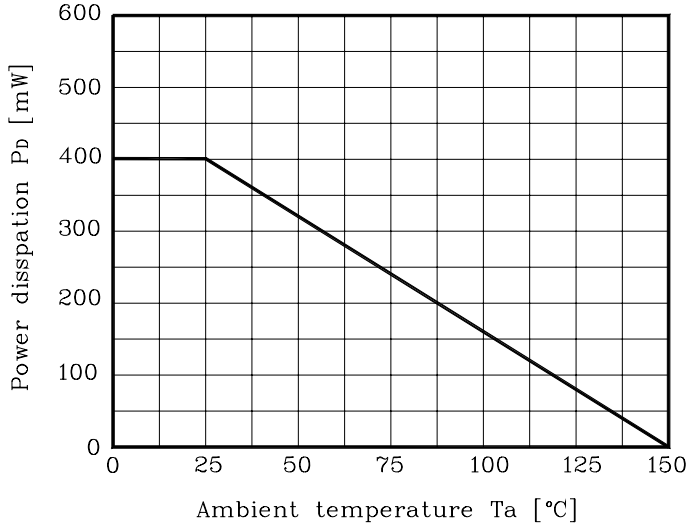


Fig. 2 $I_O - V_{I(ON)}$

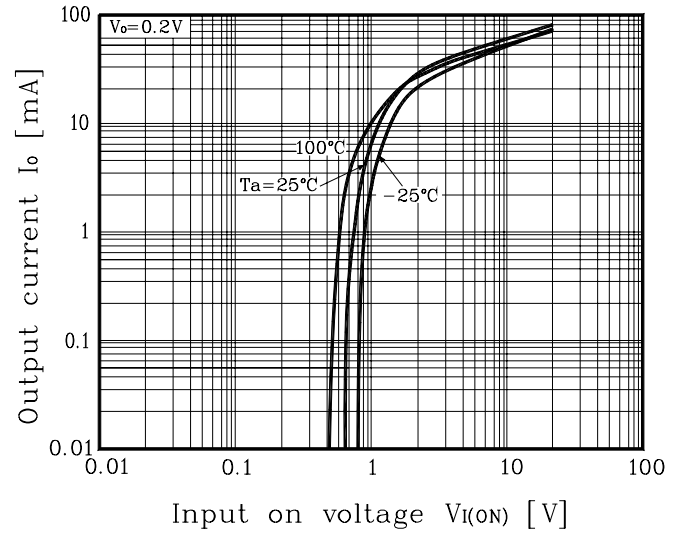


Fig. 3 $I_O - V_{I(OFF)}$

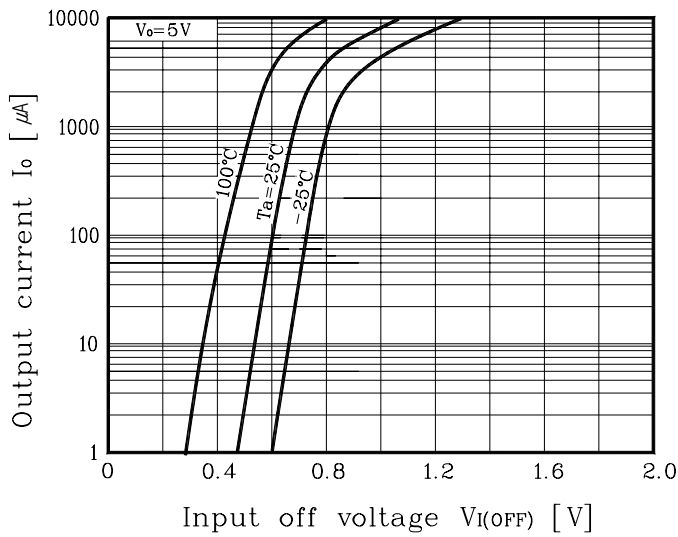
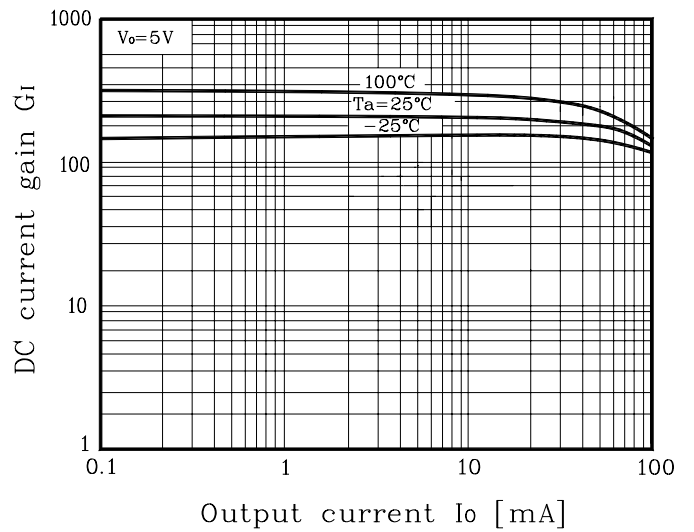
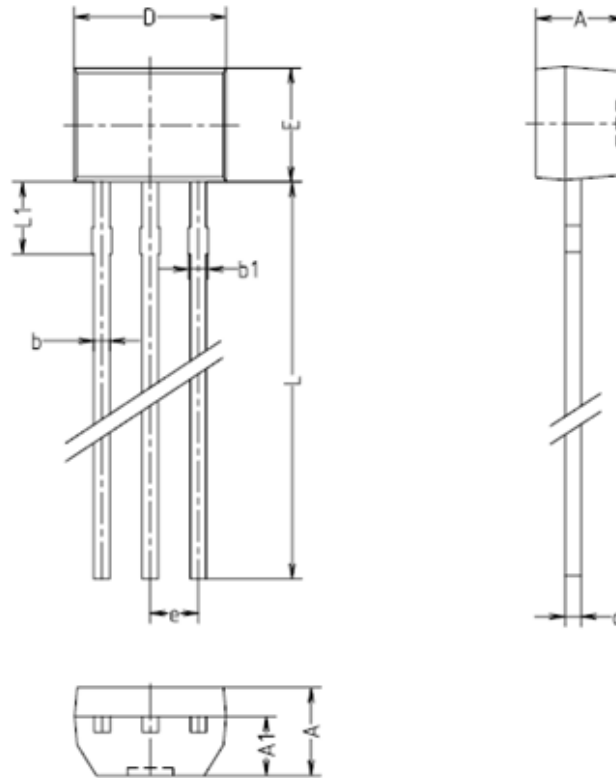


Fig. 4 $G_I - I_O$



Outline Dimension



| SYMBOL | TQ-92M | | |
|--------|---------|---------|---------|
| | MINIMUM | NOMINAL | MAXIMUM |
| A | 2.25 | 2.30 | 2.35 |
| A1 | 1.50 | 1.55 | 1.60 |
| b | 0.40 | 0.42 | 0.44 |
| b1 | 0.40 | - | 0.50 |
| c | 0.40 | 0.42 | 0.44 |
| D | 3.93 | 4.00 | 4.07 |
| E | 2.93 | 3.00 | 3.07 |
| e | 1.17 | 1.27 | 1.37 |
| L | 14.30 | 14.50 | 14.70 |
| L1 | 2.05 | 2.15 | 2.25 |

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