

(SMALL-SIGNAL TRANSISTOR)

**2SC3249**

FOR SMALL TYPE COLOUR TV CHROMA OUTPUT APPLICATION  
SILICON NPN TRIPLE DIFFUSED TYPE

**DESCRIPTION**

2SC3249 is a silicon NPN triple diffused transistor designed for colour TV chroma output circuit, high voltage, switching circuit application.

**FEATURE**

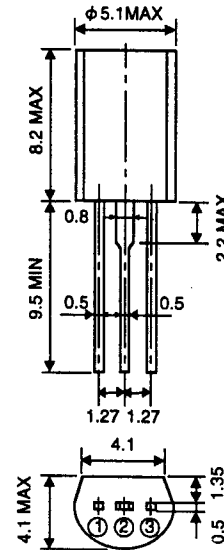
- High voltage  $V_{CE0}=250V$
- High gain width product  $f_r=80MHz$  typ
- Low  $C_{ob}$   $C_{ob}=3.5pF$  typ

**APPLICATION**

Small type colour TV chroma output circuit, high voltage switching circuit.

**OUTLINE DRAWING**

Unit:mm



**TERMINAL CONNECTOR**

- ① : EMITTER EIAJ : —
- ② : COLLECTOR JEDEC : —
- ③ : BASE

Note) The dimension without tolerance represent central value.

**MAXIMUM RATINGS (Ta=25°C)**

| Symbol | Parameter                      | Rating      | Unit |
|--------|--------------------------------|-------------|------|
| Vcbo   | Collector to Base voltage      | 300         | V    |
| VEBO   | Emitter to Base voltage        | 5           | V    |
| VCEO   | Collector to Emitter voltage   | 250         | V    |
| Ic     | Collector current              | 100         | mA   |
| Pc     | Collector dissipation(Ta=25°C) | 900         | mW   |
| Tj     | Junction temperature           | +150        | °C   |
| Tstg   | Storage temperature            | -55 to +150 | °C   |

**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

| Symbol   | Parameter                    | Test conditions                           | Limits |     |     | Unit |
|----------|------------------------------|---|--------|-----|-----|------|
|          |                              |   | Min    | Typ | Max |      |
| V(BR)CBO | C to B break down voltage    | Ic=10 μA, IE=0                            | 300    |     |     | V    |
| V(BR)EBO | E to B break down voltage    | IE=10 μA, IC=0                            | 5      |     |     | V    |
| V(BR)CEO | C to E break down voltage    | Ic=5mA, RBE=∞, pulse measurement          | 250    |     |     | V    |
| ICBO     | Collector cut off current    | VCB=150V, IE=0                            |        |     | 1   | μA   |
| hFE *    | DC forward current gain      | VCE=10V, IC=25mA                          | 55     |     | 230 | —    |
| VCE(sat) | C to E saturation voltage    | Ic=25mA, IB=2.5mA                         |        |     | 1.5 | V    |
| fr       | Gain band width product      | VCE=10V, IE=-10mA f=10MHz                 | 60     | 80  |     | MHz  |
| Cob      | Collector output capacitance | VCB=10V, IE=0, f=1MHz, triode measurement |        | 3.5 |     | pF   |

\* It shows hFE classification in right table.

| Item | C         | D         | E          |
|------|-----------|-----------|------------|
| hFE  | 55 to 110 | 90 to 180 | 150 to 230 |

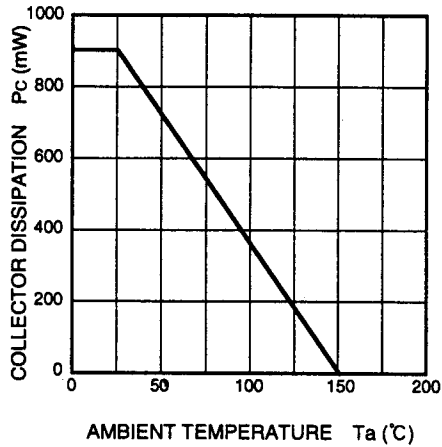
(SMALL-SIGNAL TRANSISTOR)

**2SC3249**

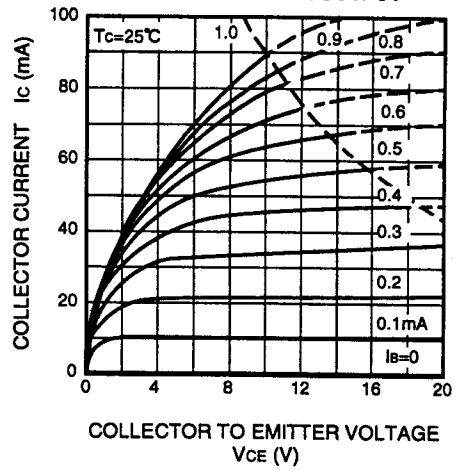
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SILICON NPN TRIPLE DIFFUSED TYPE

**TYPICAL CHARACTERISTICS**

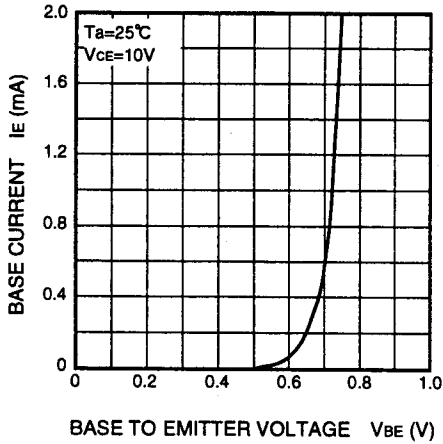
**COLLECTOR DISSIPATION VS. AMBIENT TEMPERATURE**



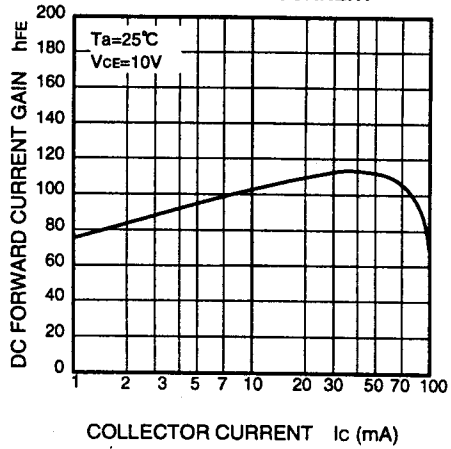
**COMMON EMITTER OUTPUT**



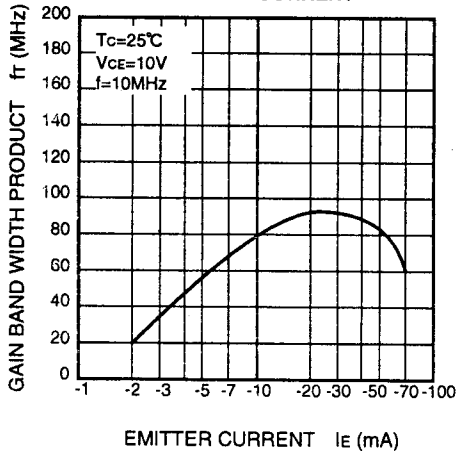
**COMMON EMITTER TRANSFER**



**DC FORWARD CURRENT GAIN VS. COLLECTOR CURRENT**



**GAIN BAND WIDTH PRODUCT VS. EMITTER CURRENT**



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