

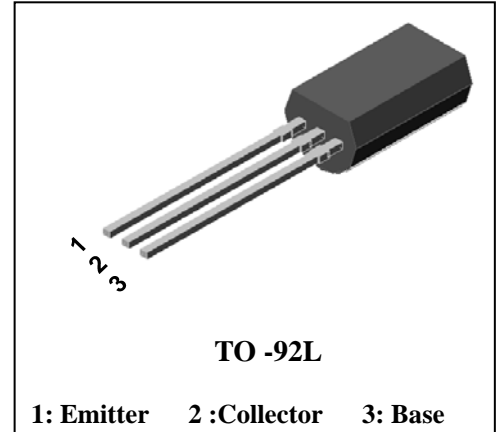
Descriptions

- High voltage application
- Color TV horizontal driver application
- Color TV chroma output application

Features

- Collector-Emitter voltage $V_{CEO}=300V$

PIN Connection



Ordering Information

| Type NO. | Marking | Package Code |
|----------|---------|--------------|
| STC345L | STC345L | TO-92L |

Absolute maximum ratings

($T_a=25^{\circ}C$)

| Characteristic | Symbol | Ratings | Unit |
|---------------------------|-----------|-----------|-------------|
| Collector-Base voltage | V_{CBO} | 300 | V |
| Collector-Emitter voltage | V_{CEO} | 300 | V |
| Emitter-Base voltage | V_{EBO} | 7 | V |
| Collector current | I_C | 100 | mA |
| Base Current | I_B | 20 | mA |
| Collector dissipation | P_C | 1 | W |
| Junction temperature | T_j | 150 | $^{\circ}C$ |
| Storage temperature | T_{stg} | -55 ~ 150 | $^{\circ}C$ |

Electrical Characteristics**(Ta=25°C)**

| Characteristic | Symbol | Test Condition | Min. | Typ. | Max. | Unit |
|--------------------------------------|---------------|-----------------------------|-------------|-------------|-------------|-------------|
| Collector cut-off current | I_{CBO} | $V_{CB}=240V, I_E=0$ | - | - | 1.0 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB}=5V, I_C=0$ | - | - | 1.0 | μA |
| DC current gain | $h_{FE} (1)$ | $V_{CE}=10V, I_C=0.5mA$ | 20 | - | - | |
| | $h_{FE} (2)$ | $V_{CE}=10V, I_C=20mA$ | 30 | - | 200 | |
| Collector-Emitter saturation voltage | $V_{CE(sat)}$ | $I_C=10mA, I_B=1mA$ | - | - | 1.0 | V |
| Transition frequency | f_T | $V_{CE}=10V, I_C=20mA$ | 50 | - | - | MHz |
| Collector output capacitance | C_{ob} | $V_{CB}=20V, I_E=0, f=1MHz$ | - | 3.0 | - | pF |

Electrical Characteristic Curves

Fig. 1 $h_{FE} - I_C$

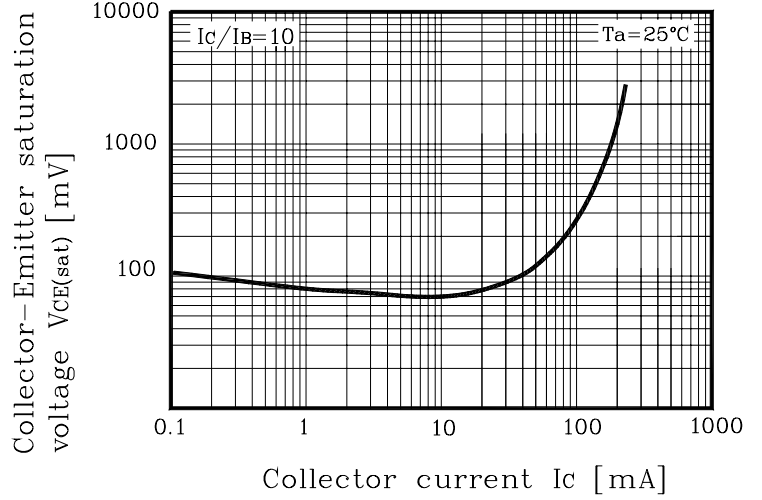
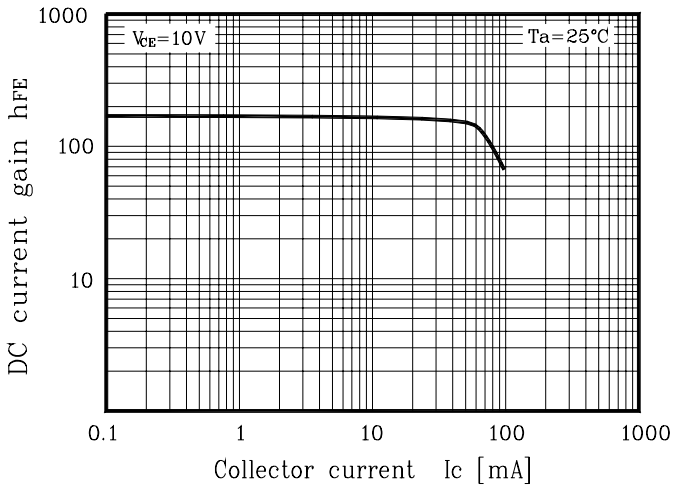


Fig. 3 $f_T - I_C$

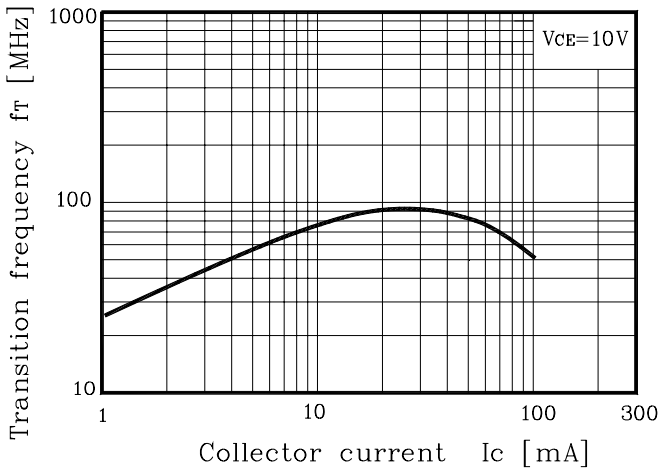


Fig. 4 $C_{ob} - V_R$

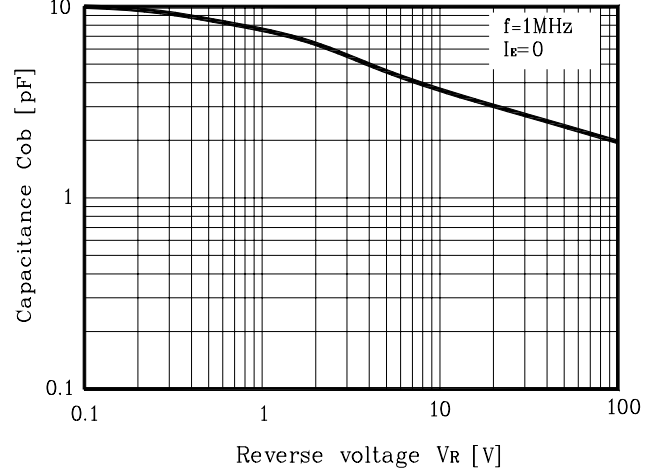
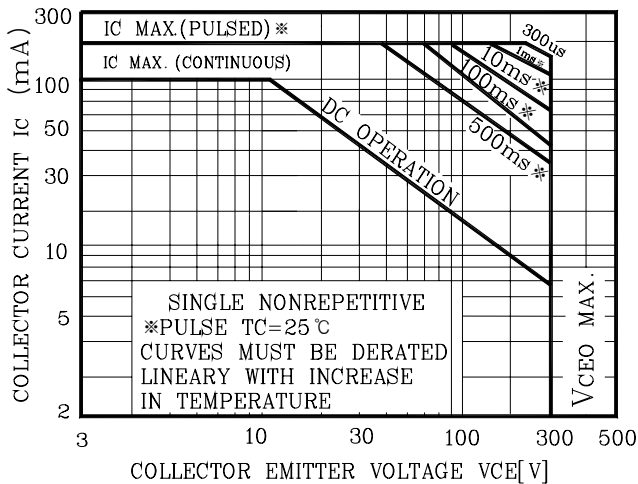
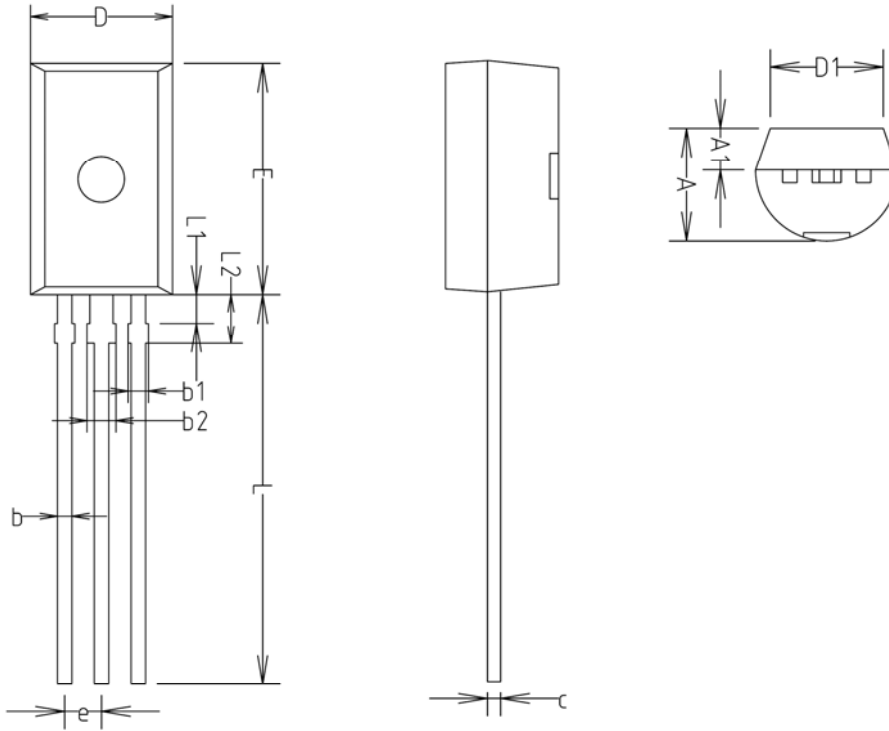


Fig. 5 Safe operating Area



Outline Dimension



| SYMBOL | MILLIMETERS(mm) | | | NOTE |
|--------|-----------------|---------|---------|------|
| | MINIMUM | NOMINAL | MAXIMUM | |
| A | 3.70 | 3.90 | 4.10 | |
| A1 | 1.25 | 1.45 | 1.65 | |
| b | 0.40 | 0.50 | 0.60 | |
| b1 | — | — | 0.70 | |
| b2 | — | — | 1.00 | |
| c | 0.35 | 0.45 | 0.55 | |
| D | 4.70 | 4.90 | 5.10 | |
| D1 | 3.70 | 3.90 | 4.10 | |
| E | 7.80 | 8.00 | 8.20 | |
| e | 1.27 TYP | | | |
| L | 13.10 | 13.50 | 13.90 | |
| L1 | 0.90 | 1.00 | 1.10 | |
| L2 | 1.50 | 1.70 | 1.90 | |

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