

S1298

SILICON NPN TRIPLE DIFFUSED TYPE

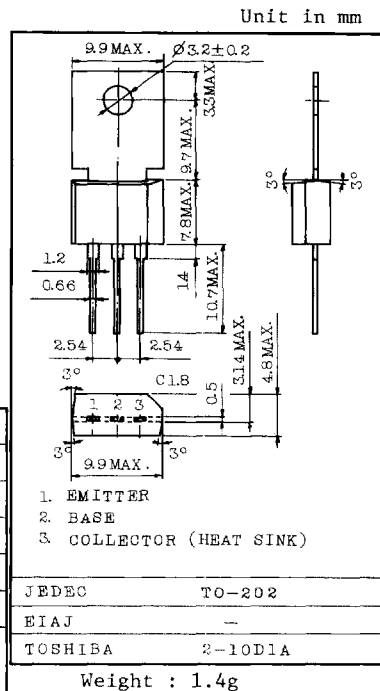
COLOR TV CHROMA OUTPUT APPLICATIONS.

FEATURES:

- High Collector-Emitter Breakdown Voltage : $V_{CE0}=300V$
- Low C_{cb} (2.5pF Typ.)

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

| CHARACTERISTIC | | SYMBOL | RATING | 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 | 50 | mA |
| Collector Power Dissipation | $T_a=25^{\circ}C$ | P_C | 1.5 | W |
| | $T_c=25^{\circ}C$ | | 6.25 | |
| Junction Temperature | | T_j | 150 | $^{\circ}C$ |
| Storage Temperature Range | | T_{stg} | -55 ~ 150 | $^{\circ}C$ |



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

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|---------------|-----------------------------|------|------|------|---------|
| Collector Cut-off Current | I_{CBO} | $V_{CB}=300V, I_E=0$ | - | - | 10 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=7V, I_C=0$ | - | - | 10 | μA |
| DC Current Gain | $h_{FE(1)}$ | $V_{CE}=10V, I_C=4mA$ | 20 | - | - | |
| | $h_{FE(2)}$ | $V_{CE}=10V, I_C=20mA$ | 30 | - | 150 | |
| 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 | 70 | - | MHz |
| Collector-Base Capacitance | C_{cb} | $V_{CB}=20V, I_E=0, f=1MHz$ | - | 2.5 | 3.0 | pF |

