

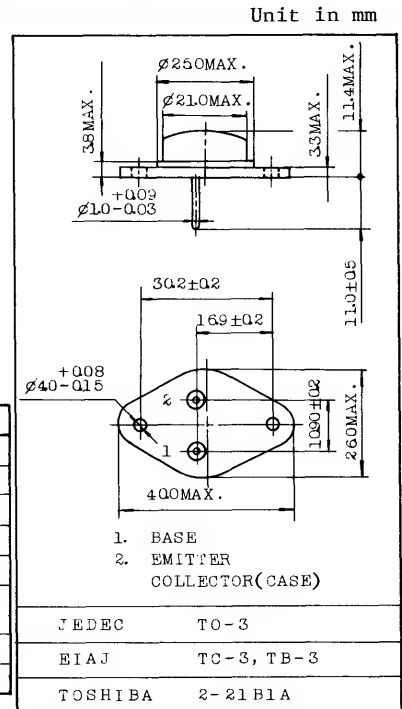
COLOR TV HORIZONTAL OUTPUT APPLICATIONS.

FEATURES:

- High Voltage : $V_{CBO}=1500V$
- Low Saturation Voltage
: $V_{CE(sat)}=5V$ (Max.) ($I_C=4A, I_B=0.8A$)
- High Speed ; $t_f=1.0\mu s$ (Max.) ($I_{CP}=4A, I_{B1(end)}=0.8A$)
- Built-in Damper Type.
- Glass Passivated Collector-Base Junction.

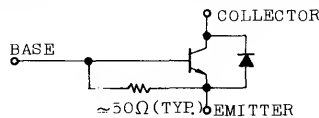
MAXIMUM RATINGS ($T_a=25^\circ C$)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---|-----------|---------|------------|
| Collector-Base Voltage | V_{CBO} | 1500 | V |
| Collector-Emitter Voltage | V_{CEO} | 600 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current | I_C | 5 | A |
| Emitter Current | I_E | -5 | A |
| Collector Power Dissipation ($T_c=25^\circ C$) | P_C | 50 | W |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature Range | T_{stg} | -65~150 | $^\circ C$ |



Mounting kit No. AC42C
Weight : 17g

EQUIVALENT CIRCUIT



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

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|---------------|-------------------------------|------|------|------|---------|
| Collector Cut-off Current | I_{CBO} | $V_{CB}=500V, I_E=0$ | - | - | 10 | μA |
| Emitter-Base Breakdown Voltage | $V_{(BR)EBO}$ | $I_E=200mA, I_C=0$ | 5 | - | - | V |
| DC Current Gain | h_{FE} | $V_{CE}=5V, I_C=1.0A$ | 8 | 12 | - | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=4A, I_B=0.8A$ | - | 3 | 5 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=4A, I_B=0.8A$ | - | - | 1.5 | V |
| Forward Voltage (Damper Diode) | $-V_F$ | $I_F=5A$ | - | 1.6 | 2.0 | V |
| Transition Frequency | f_T | $V_{CE}=10V, I_C=0.1A$ | - | 3 | - | MHz |
| Collector Output Capacitance | C_{ob} | $V_{CB}=10V, I_E=0, f=1MHz$ | - | 165 | - | pF |
| Fall Time (Fig.) | t_f | $I_{CP}=4A, I_{B1(end)}=0.8A$ | - | 0.5 | 1.0 | μs |

2SD870

Fig. t_f TEST CIRCUIT

