

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07799 07-33-11

**2SD818**

SILICON NPN TRIPLE DIFFUSED MESA TYPE

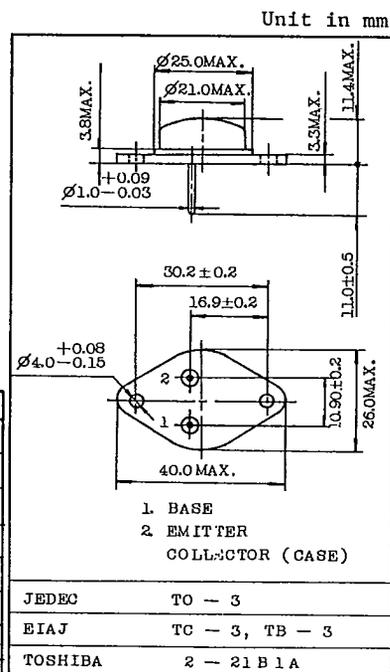
COLOR TV HORIZONTAL OUTPUT APPLICATIONS.

FEATURES:

- High Voltage :  $V_{CB0}=1500V$
- Low Saturation Voltage :  $V_{CE(sat)}=4V$  (Typ.)
- High speed :  $t_f=0.5\mu s$  (Typ.)
- Glass Passivated Collector-Base Junction.

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

| CHARACTERISTIC                                      | SYMBOL    | RATING  | UNIT       |
|---|-----------|---------|------------|
| Collector Base Voltage                              | $V_{CB0}$ | 1500    | V          |
| Collector Emitter Voltage                           | $V_{CEO}$ | 600     | V          |
| Emitter Base Voltage                                | $V_{EBO}$ | 5       | V          |
| Collector Current                                   | $I_C$     | 2.5     | A          |
| Emitter Current                                     | $I_E$     | -2.5    | A          |
| Collector Power Dissipation<br>( $T_c=25^\circ C$ ) | $PC$      | 50      | W          |
| Junction Temperature                                | $T_j$     | 150     | $^\circ C$ |
| Storage Temperature Range                           | $T_{stg}$ | -65~150 | $^\circ C$ |

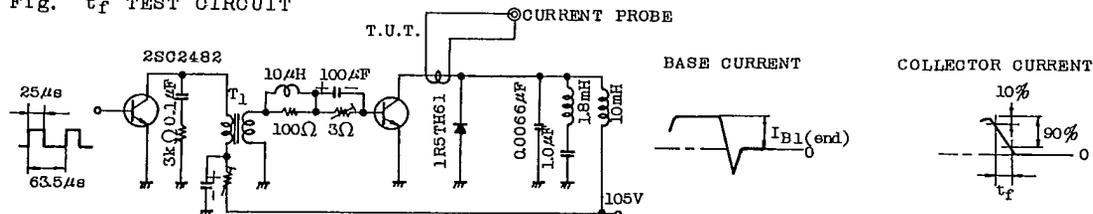


Mounting kit No. AC42C

Weight : 17g

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   | $\mu A$ |
| Emitter Cut-off Current              | $I_{EBO}$     | $V_{EB}=5V, I_C=0$                    | -    | -    | 1    | mA      |
| DC Current Gain                      | $h_{FE}$      | $V_{CE}=5V, I_C=0.5A$                 | 8    | 20   | -    |         |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=2.0A, I_B=0.6A$                  | -    | 4    | 8    | V       |
| Base-Emitter Saturation Voltage      | $V_{BE(sat)}$ | $I_C=2.0A, I_B=0.6A$                  | -    | -    | 1.5  | V       |
| Transition Frequency                 | $f_T$         | $V_{CE}=10V, I_C=0.1A$                | -    | 3    | -    | MHz     |
| Collector Output Capacitance         | $C_{ob}$      | $V_{CB}=10V, I_E=0, f=1MHz$           | -    | 95   | -    | pF      |
| Fall Time                            | $t_f$         | $I_{CP}=20A, I_{B1}(end)=0.6A$ (Fig.) | -    | 0.5  | 1.0  | $\mu s$ |

Fig.  $t_f$  TEST CIRCUIT

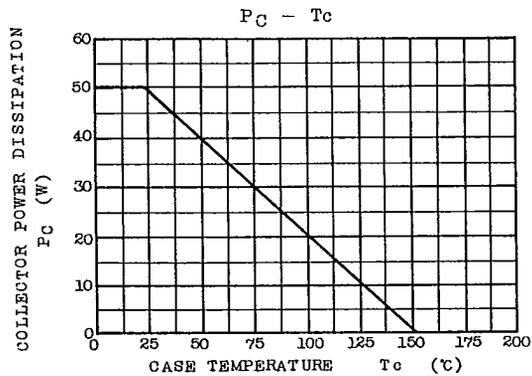
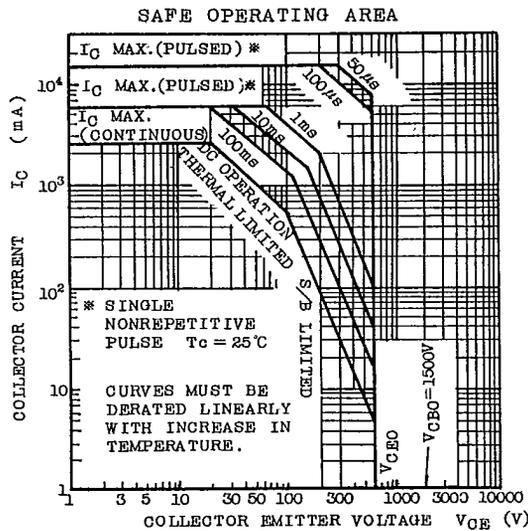
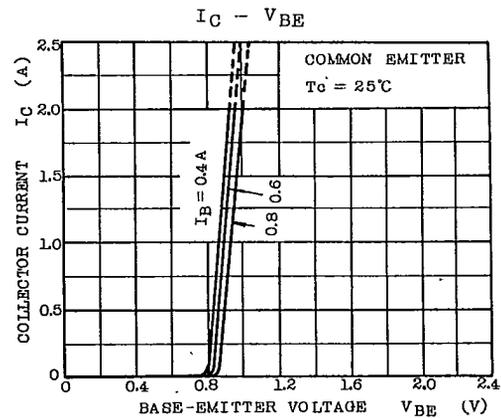
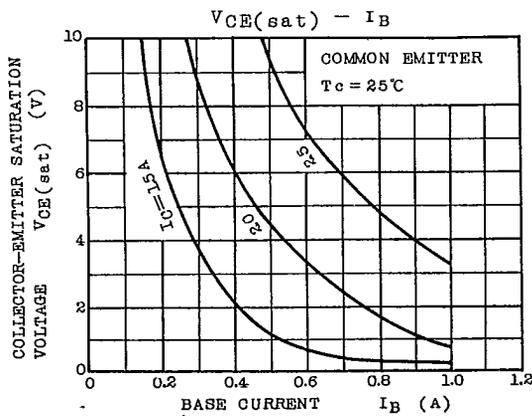
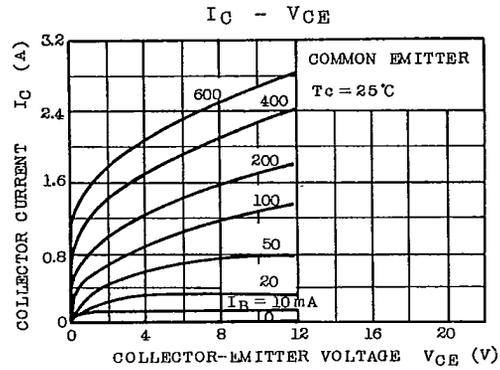
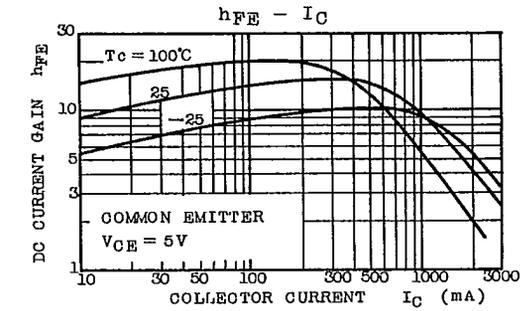
TOSHIBA CORPORATION

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07800

D T-33-11

2SD818



TOSHIBA CORPORATION