

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07906 D T-33-11

SILICON NPN TRIPLE DIFFUSED MESA TYPE

2SD1279

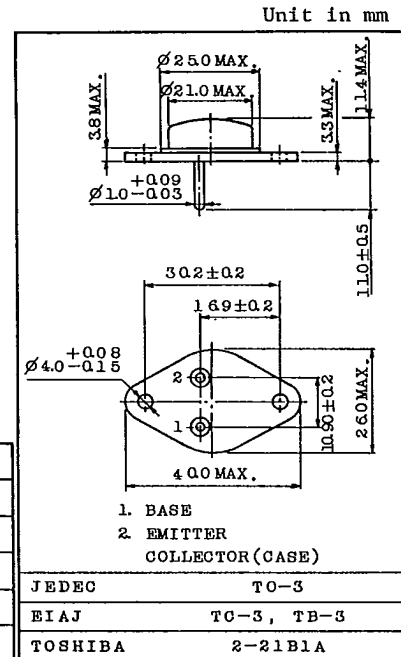
COLOR TV HORIZ. DEFLECTION OUTPUT APPLICATIONS.
SWITCHING REGULATOR APPLICATIONS.

FEATURES:

- . High Voltage : $V_{CBO}=1400V$
- . Low Saturation Voltage
: $V_{CE(sat)}=5V(\text{Max.}) (I_C=8A, I_B=2A)$
- . High Speed : $t_f=1.0\mu s(\text{Max.})$
- . Glass Passivated Collector-Base Junction.

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

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|-----------------------------|-----------|---------|------------|
| Collector-Base Voltage | V_{CBO} | 1400 | V |
| Collector-Emitter Voltage | V_{CEO} | 600 | V |
| Emitter-Base Voltage | V_{EBO} | 5 | V |
| Collector Current | I_C | 10 | A |
| Base Current | I_B | 5 | A |
| Collector Power Dissipation | P_C | 50 | W |
| Junction Temperature | T_j | 150 | $^\circ C$ |
| Storage Temperature Range | T_{stg} | -65~150 | $^\circ C$ |



Weight : 17.0g

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

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|---------------|--|------|------|------|---------|
| Collector Cut-off Current | I_{CBO} | $V_{CB}=500V, I_E=0$ | - | - | 10 | μA |
| Emitter Cut-off Current | I_{EBO} | $V_{EB}=5V, I_C=0$ | - | - | 1 | mA |
| DC Current Gain | h_{FE} | $V_{CE}=5V, I_C=2A$ | 8 | 22 | - | |
| Collector-Emitter Saturation Voltage | $V_{CE(sat)}$ | $I_C=8A, I_B=2A$ | - | - | 5 | V |
| Base-Emitter Saturation Voltage | $V_{BE(sat)}$ | $I_C=8A, I_B=2A$ | - | - | 1.6 | 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 |
| Collector Current Fall Time | t_f | $I_{CP}=7A, I_{B1}(\text{end})=1.5A$ (Fig.) | - | - | 1.0 | μs |

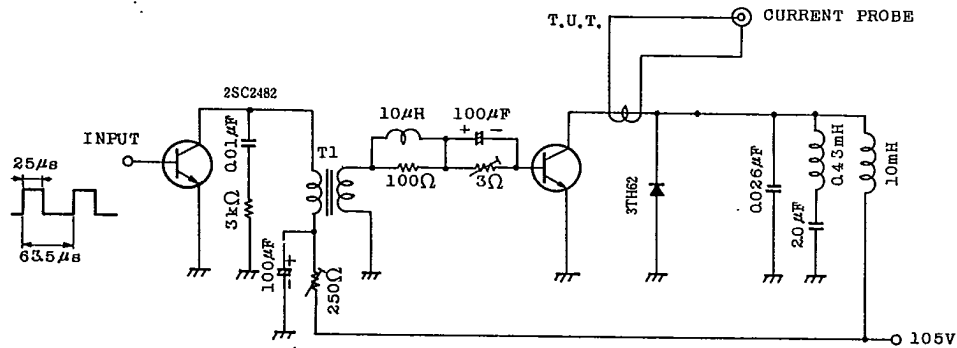
TOSHIBA CORPORATION

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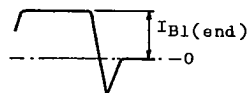
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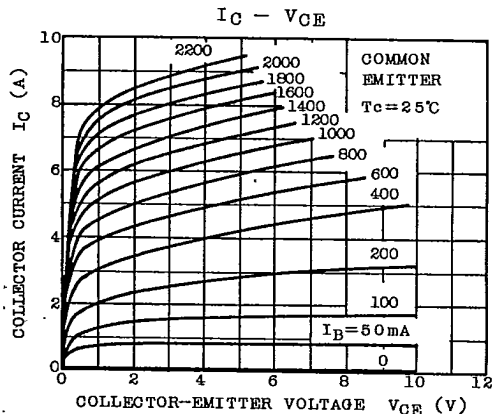
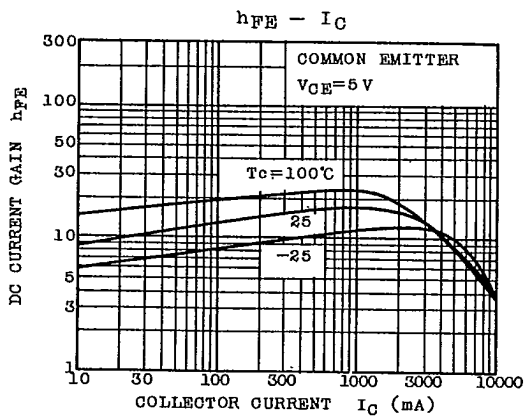
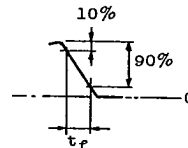
Fig. t_f TEST CIRCUIT



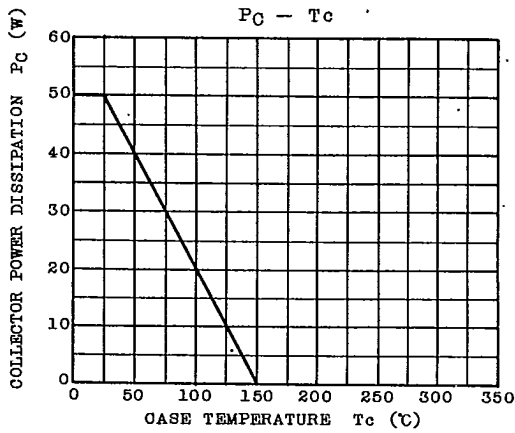
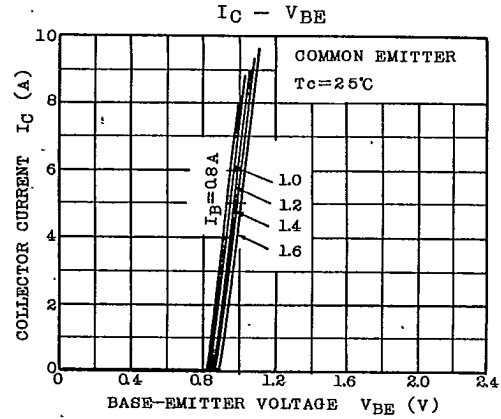
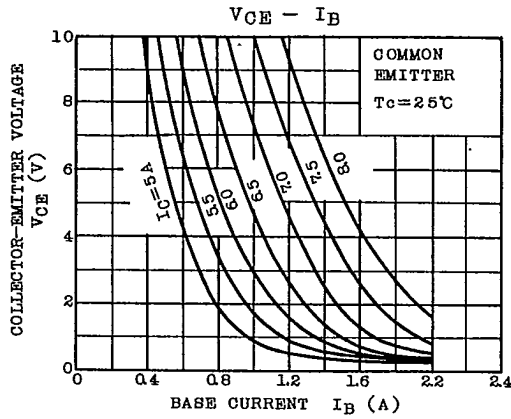
BASE CURRENT



COLLECTOR CURRENT



TOSHIBA CORPORATION



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