

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07906 D T-33-11

SILICON NPN TRIPLE DIFFUSED MESA TYPE

**2SD1279**

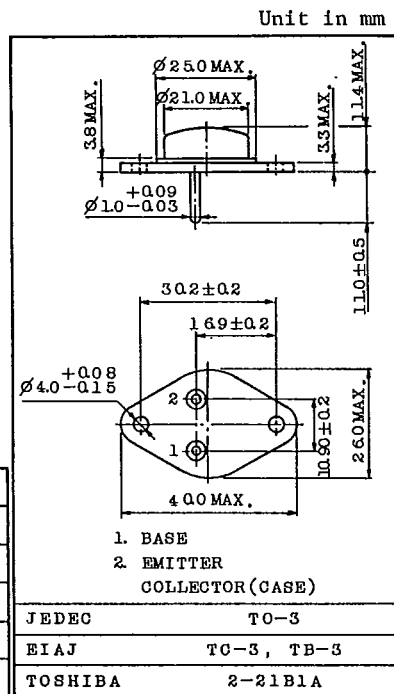
COLOR TV HORIZ. DEFLECTION OUTPUT APPLICATIONS.  
SWITCHING REGULATOR APPLICATIONS.

## FEATURES:

- High Voltage :  $V_{CB0}=1400V$
- 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      | $V_{CB0}$ | 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

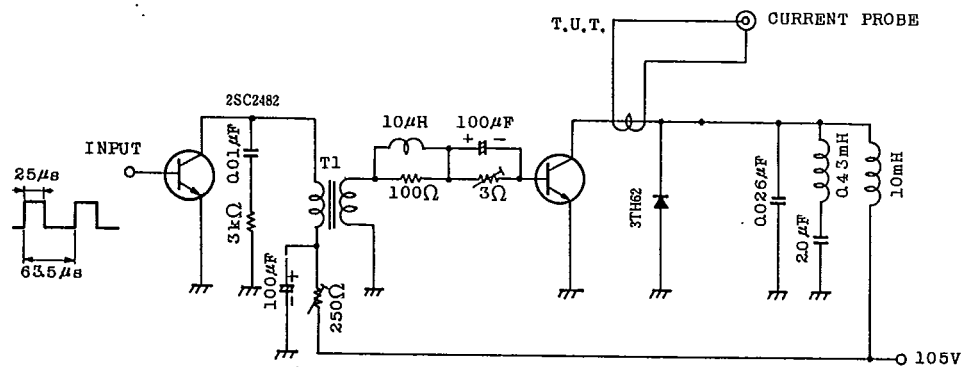
ELECTRICAL CHARACTERISTICS ( $T_c=25^\circ C$ )

| CHARACTERISTIC                       | SYMBOL        | TEST CONDITION                                 | MIN. | TYP. | MAX. | UNIT    |
|--------------------------------------|---------------|------------------------------------------------|------|------|------|---------|
| Collector Cut-off Current            | $I_{CBO}$     | $V_{CB}=500V$ , $I_E=0$                        | -    | -    | 10   | $\mu A$ |
| Emitter Cut-off Current              | $I_{EBO}$     | $V_{EB}=5V$ , $I_C=0$                          | -    | -    | 1    | mA      |
| DC Current Gain                      | $h_{FE}$      | $V_{CE}=5V$ , $I_C=2A$                         | 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  | $\mu s$ |

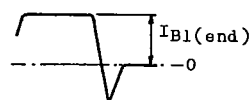
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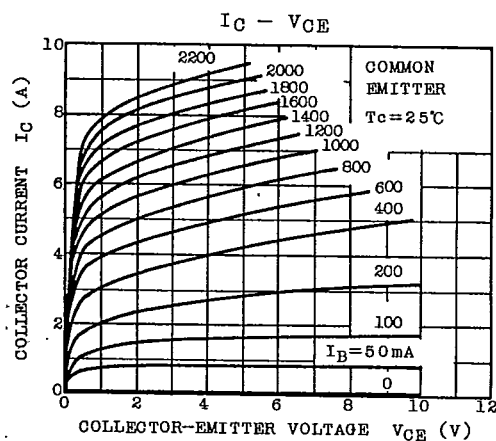
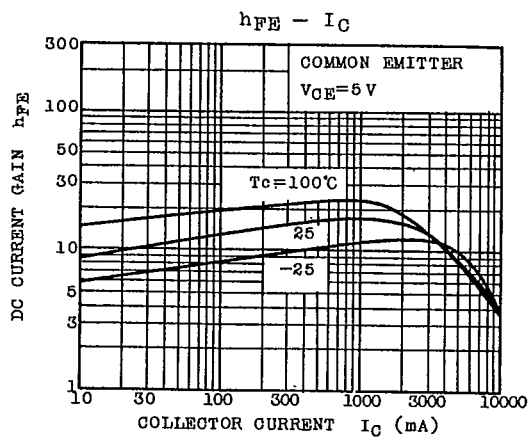
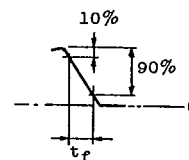
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**2SD1279**Fig.  $t_f$  TEST CIRCUIT

BASE CURRENT



COLLECTOR CURRENT

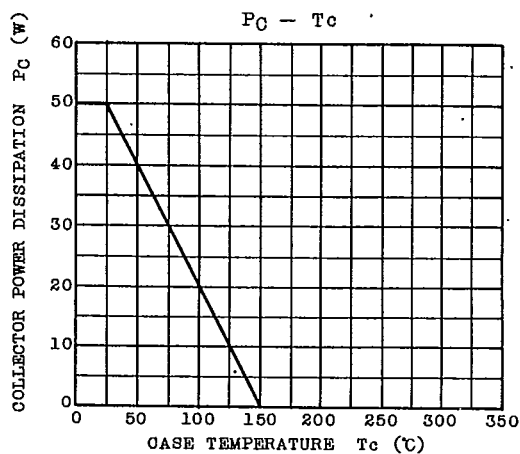
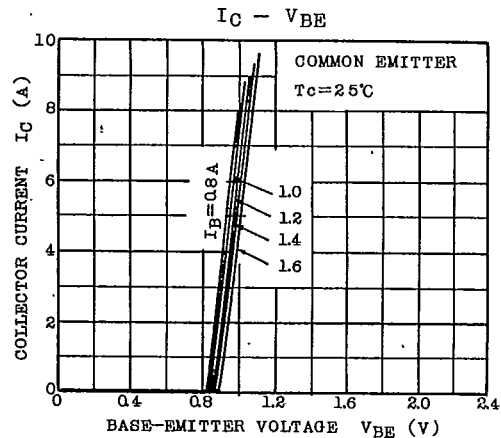
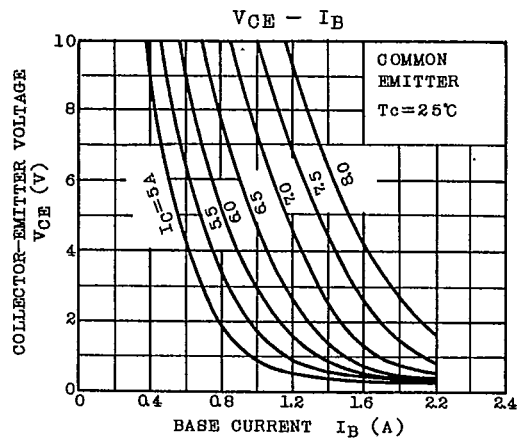


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