

|                                  |   |         |
|----------------------------------|---|---------|
| <b>SANYO</b>                     | No.753C                                       | 2SC2857 |
|                                  | NPN Triple Diffused Planar Silicon Transistor |         |
| High-Voltage Driver Applications |   |         |

**Applications**

- Color TV vertical driver, sound driver applications

**Features**

- High breakdown voltage ( $V_{CE0} \geq 180V$ )
- High collector dissipation ( $P_C = 500mW$ )

**Absolute Maximum Ratings at  $T_a = 25^\circ C$**

|                              |           |             | unit       |
|------------------------------|-----------|-------------|------------|
| Collector to Base Voltage    | $V_{CB0}$ | 180         | V          |
| Collector to Emitter Voltage | $V_{CE0}$ | 180         | V          |
| Emitter to Base Voltage      | $V_{EB0}$ | 5           | V          |
| Collector Current            | $I_C$     | 50          | mA         |
| Collector Current(Pulse)     | $I_{CP}$  | 100         | mA         |
| Collector Dissipation        | $P_C$     | 500         | mW         |
| Junction Temperature         | $T_J$     | 150         | $^\circ C$ |
| Storage Temperature          | $T_{stg}$ | -55 to +150 | $^\circ C$ |

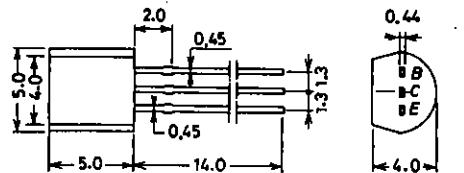
**Electrical Characteristics at  $T_a = 25^\circ C$**

|                          |               |                            | min | typ | max  | unit    |
|--------------------------|---------------|----------------------------|-----|-----|------|---------|
| Collector Cutoff Current | $I_{CB0}$     | $V_{CB} = 180V, I_E = 0$   |     |     | 1.0  | $\mu A$ |
| Emitter Cutoff Current   | $I_{EB0}$     | $V_{EB} = 5V, I_C = 0$     |     |     | 1.0  | $\mu A$ |
| DC Current Gain          | $h_{FE}$      | $V_{CE} = 10V, I_C = 10mA$ | 40* |     | 320* |         |
| Gain-Bandwidth Product   | $f_T$         | $V_{CE} = 30V, I_C = 10mA$ | 50  |     |      | MHz     |
| Output Capacitance       | $c_{ob}$      | $V_{CB} = 10V, f = 1MHz$   |     |     | 4.0  | pF      |
| C-E Saturation Voltage   | $V_{CE(sat)}$ | $I_C = 20mA, I_B = 2mA$    |     |     | 0.6  | V       |
| B-E Saturation Voltage   | $V_{BE(sat)}$ | $I_C = 20mA, I_B = 2mA$    |     |     | 1.0  | V       |

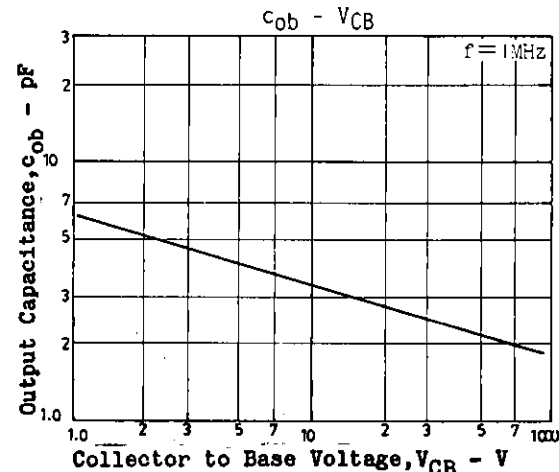
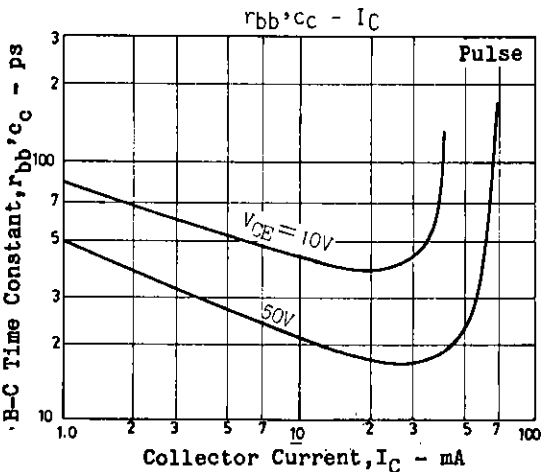
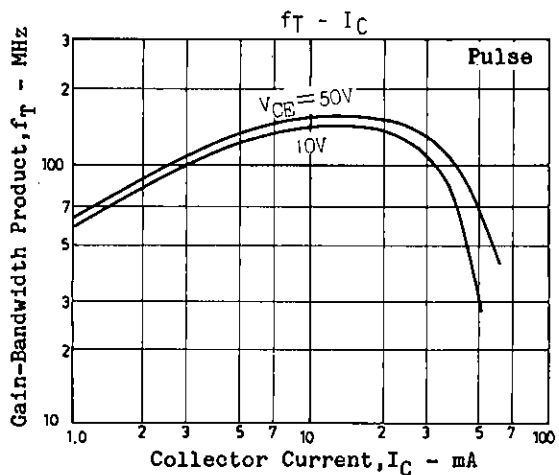
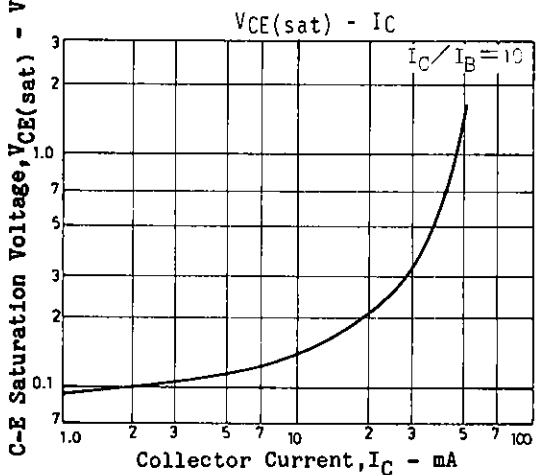
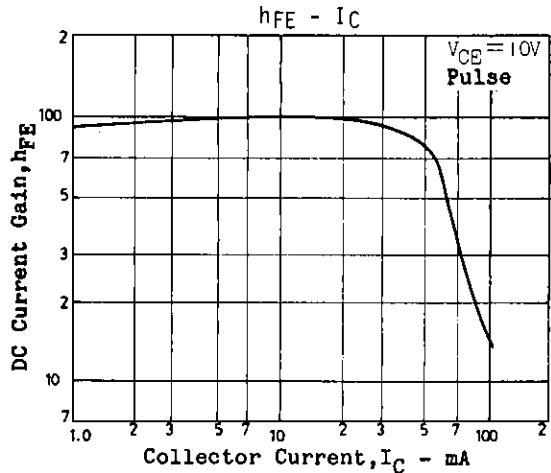
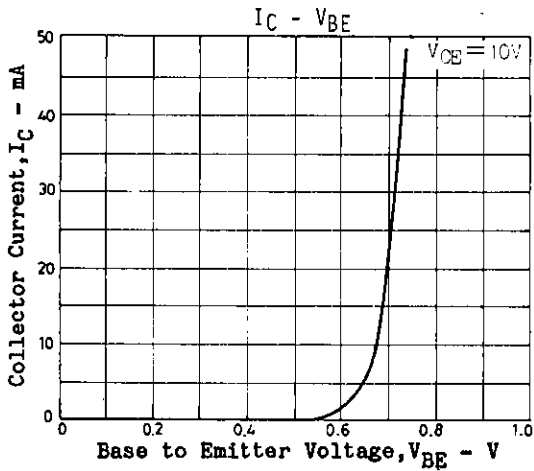
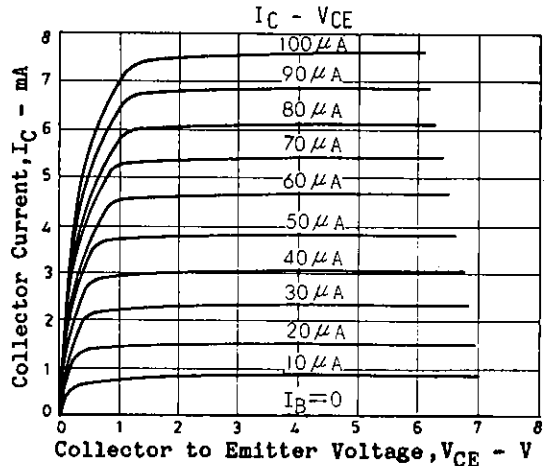
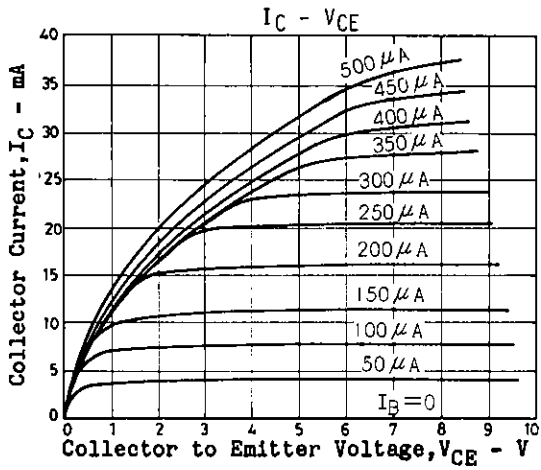
\*:The 2SC2857 is classified by 10mA  $h_{FE}$  as follows :

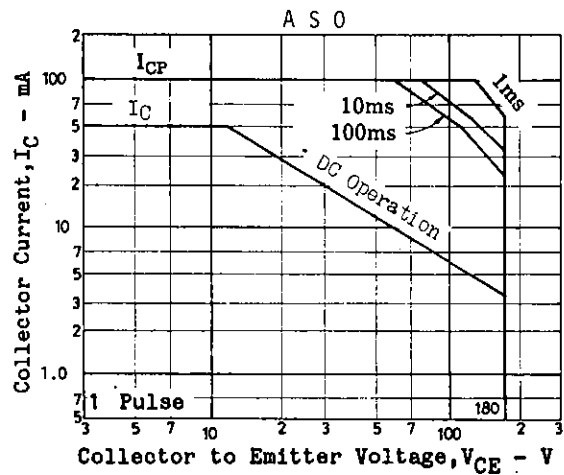
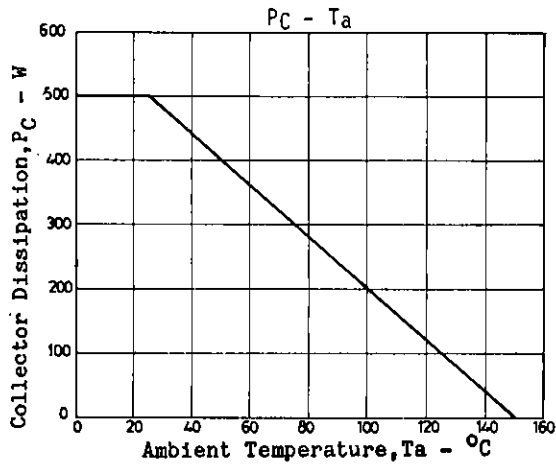
|    |   |    |    |   |     |     |   |     |     |   |     |
|----|---|----|----|---|-----|-----|---|-----|-----|---|-----|
| 40 | C | 80 | 60 | D | 120 | 100 | E | 200 | 160 | F | 320 |
|----|---|----|----|---|-----|-----|---|-----|-----|---|-----|

**Package Dimensions 2003A**  
(unit: mm)



JEDEC: TO-92      B: Base  
 EIAJ : SC-43      C: Collector  
 SANYO: NP        E: Emitter





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