TOSHIBA TRANSISTOR SILICON NPN TRIPLE DIFFUSED MESA TYPE

2SC5386

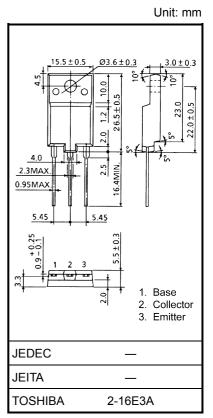
HORIZONTAL DEFLECTION OUTPUT FOR HIGH RESOLUTION DISPLAY, COLOR TV HIGH SPEED SWITCHING APPLICATIONS

 $\begin{array}{ll} \bullet & \mbox{High Voltage} & : \mbox{$V_{CBO} = 1500$ V$} \\ \bullet & \mbox{Low Saturation Voltage} & : \mbox{V_{CE} (sat) = 3 V (Max.)$} \\ \bullet & \mbox{High Speed} & : \mbox{$t_f = 0.15$ $\mu s (Typ.)$} \\ \end{array}$

• Collector Metal (Fin) is Fully Covered with Mold Resin.

MAXIMUM RATINGS (Tc = 25°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 | DC | Ic | 8 | Α | |
| | Pulse | I _{CP} | 16 | | |
| Base Current | | Ι _Β | 4 | Α | |
| Collector Power Dissipation | | PC | 50 | W | |
| Junction Temperature | | Tj | 150 | °C | |
| Storage Temperature Range | | T _{stg} | -55~150 | °C | |

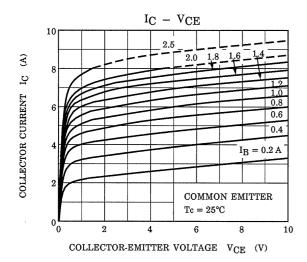


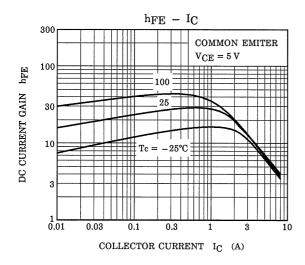
Weight: 5.5 g (typ.)

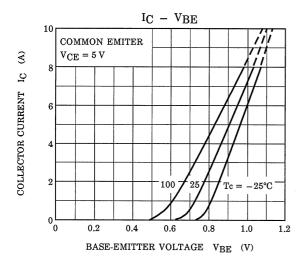
ELECTRICAL CHARACTERISTICS (Tc = 25°C)

| | | | | MIN | | | |
|--------------------------------------|--------------|-----------------------|---|-----|------|-----|------|
| CHARACTERISTIC | | SYMBOL | YMBOL TEST CONDITION | | TYP. | MAX | UNIT |
| Collector Cut-off Current | | I _{CBO} | V _{CB} = 1500 V, I _E = 0 | | _ | 1 | mA |
| Emitter Cut-off Current | | I _{EBO} | V _{EB} = 5 V, I _C = 0 | _ | _ | 10 | μA |
| Emitter-Base Breakdo | wn Voltage | V _(BR) CEO | I _C = 10 mA, I _B = 0 | 600 | _ | _ | V |
| DC Current Gain | | h _{FE (1)} | V _{CE} = 5 V, I _C = 1 A | 15 | _ | 35 | _ |
| | | h _{FE (2)} | V _{CE} = 5 V, I _C = 6 A | 4.3 | _ | 7.5 | |
| Collector-Emitter Saturation Voltage | | V _{CE (sat)} | I _C = 6 A, I _B = 1.5 A | _ | _ | 3 | V |
| Base-Emitter Saturation Voltage | | V _{BE (sat)} | I _C = 6 A, I _B = 1.5 A | _ | 1.0 | 1.5 | V |
| Transition Frequency | | f _T | V _{CE} = 10 V, I _C = 0.1 A | _ | 1.7 | _ | MHz |
| Collector Output Capacitance | | C _{ob} | V _{CB} = 10 V, I _E = 0, f = 1 MHz | _ | 105 | _ | pF |
| Switching Time | Storage Time | t _{stg} | I _{CP} = 5 A, I _{B1} (end) = 1.0 A f _H = 64 kHz | _ | 2.5 | 3.5 | μs |
| | Fall Time | t _f | | _ | 0.15 | 0.3 | |

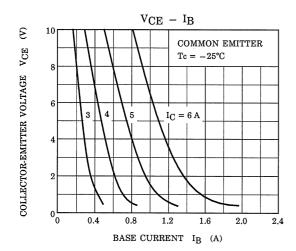
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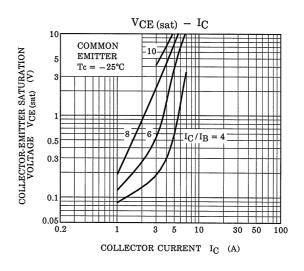


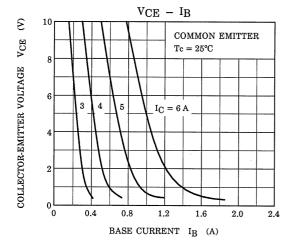


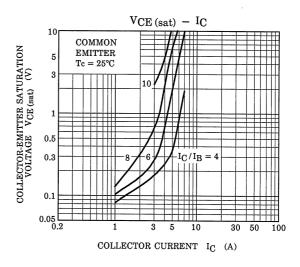


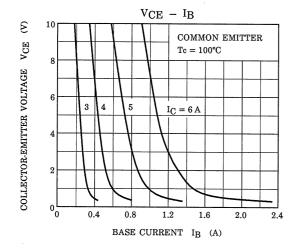
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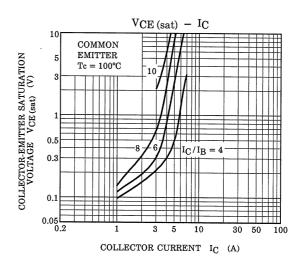


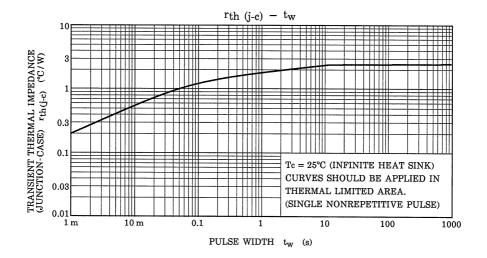


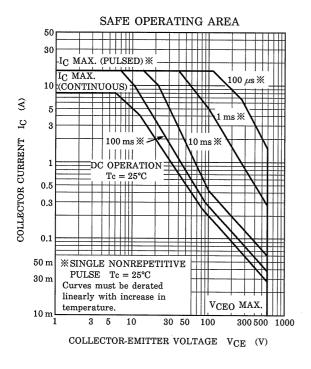


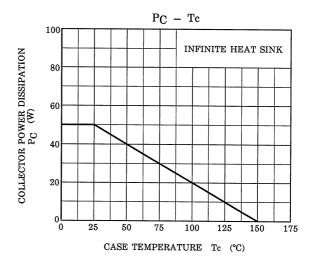












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