

SILICON NPN TRIPLE DIFFUSED TYPE (PCT PROCESS)

**BF457
BF458
BF459**

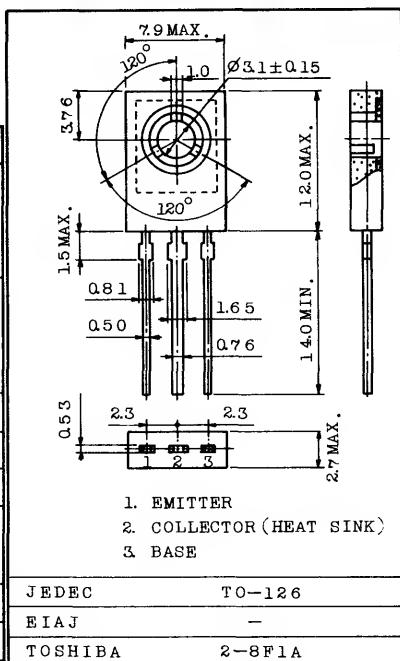
Unit in mm

COLOR TV VIDEO AND CHROMA OUTPUT APPLICATIONS.

COLOR TV HORIZONTAL DRIVER APPLICATIONS.

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

| CHARACTERISTIC | | SYMBOL | RATING | UNIT |
|-----------------------------|----------------------|------------------|-----------|------|
| Collector-Base Voltage | BF457 | V _{CBO} | 160 | V |
| | BF458 | | 250 | |
| | BF459 | | 300 | |
| Collector-Emitter Voltage | BF457 | V _{CEO} | 160 | V |
| | BF458 | | 250 | |
| | BF459 | | 300 | |
| Emitter-Base Voltage | | V _{EBO} | 5 | V |
| Collector Current | | I _C | 100 | mA |
| Base Current | | I _B | 50 | mA |
| Collector Power Dissipation | T _a =25°C | P _C | 1.2 | W |
| | T _c =25°C | | 8.3 | |
| Junction Temperature | | T _j | 150 | °C |
| Storage Temperature Range | | T _{stg} | -55 ~ 150 | °C |



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

Weight : 0.72g

| CHARACTERISTIC | | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|--------------------------------------|-------|----------------------|---|------|------|------|------|
| Collector Cut-off Current | BF457 | I _{CBO} | V _{CB} =100V, I _E =0 | - | - | 50 | nA |
| | BF458 | | V _{CB} =200V, I _E =0 | | | | |
| | BF459 | | V _{CB} =250V, I _E =0 | | | | |
| Collector-Base Breakdown Voltage | BF457 | V(BR) CBO | I _C =100μA, I _E =0 | 160 | - | - | V |
| | BF458 | | | 250 | - | - | |
| | BF459 | | | 300 | - | - | |
| Emitter-Base Breakdown Voltage | | V(BR) EBO | I _E =100μA, I _C =0 | 5 | - | - | V |
| Collector-Emitter Breakdown Voltage | BF457 | V(BR) CEO | I _C =10mA, I _E =0 | 160 | - | - | V |
| | BF458 | | | 250 | - | - | |
| | BF459 | | | 300 | - | - | |
| DC Current Gain | | h _{FE} | V _{CE} =10V, I _C =30mA | 25 | - | 240 | |
| Collector-Emitter Saturation Voltage | | V _{CE(sat)} | I _C =30mA, I _B =6mA | - | - | 1 | V |
| Transition Frequency | | f _T | V _{CE} =10V, I _C =15mA | - | 100 | - | MHz |
| Collector Output Capacitance | | C _{ob} | V _{CB} =30V, I _E =0, f=1MHz | - | 4 | - | pF |

TOSHIBA CORPORATION

BF457•BF458•BF459

