

**DESCRIPTION**

- High Voltage:  $V_{CEV} = 330V(\text{Min})$
- Fast Switching Speed-  
:  $t_f = 750ns(\text{Max})$
- Low Saturation Voltage-  
:  $V_{CE(\text{sat})} = 1.0V(\text{Max}) @ I_C = 5A$

**APPLICATIONS**

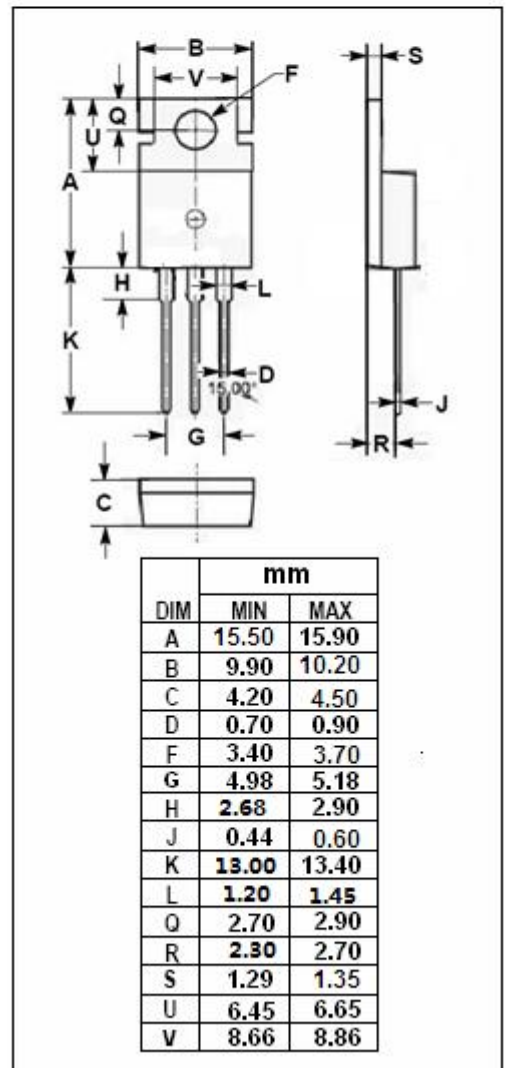
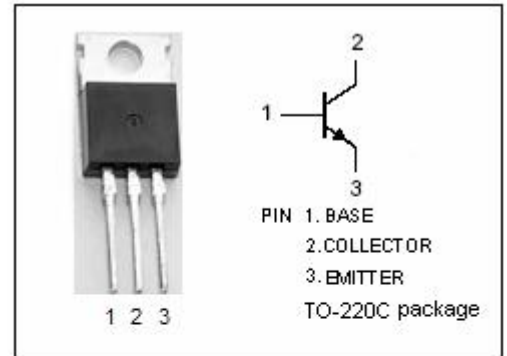
- Designed for use in horizontal deflection output stages of TV's and CRT's

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

| SYMBOL           | PARAMETER  | VALUE   | UNIT             |
|------------------|--|---------|------------------|
| $V_{CBO}$        | Collector-Base Voltage                                 | 330     | V                |
| $V_{CEV}$        | Collector-Emitter Voltage                              | 330     | V                |
| $V_{CEO}$        | Collector-Emitter Voltage                              | 150     | V                |
| $V_{EBO}$        | Emitter-Base Voltage                                   | 6       | V                |
| $I_C$            | Collector Current-Continuous                           | 7       | A                |
| $I_{CP}$         | Collector Current-Peak Repetitive                      | 10      | A                |
| $I_{CP}$         | Collector Current- Peak (10ms)                         | 15      | A                |
| $I_B$            | Base Current   | 4       | A                |
| $P_C$            | Collector Power Dissipation @ $T_C = 25^\circ\text{C}$ | 60      | W                |
| $T_J$            | Junction Temperature                                   | 150     | $^\circ\text{C}$ |
| $T_{\text{stg}}$ | Storage Temperature Range                              | -65~150 | $^\circ\text{C}$ |

**THERMAL CHARACTERISTICS**

| SYMBOL        | PARAMETER                               | MAX  | UNIT                      |
|---------------|---|------|---------------------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case    | 2.08 | $^\circ\text{C}/\text{W}$ |
| $R_{th\ j-a}$ | Thermal Resistance, Junction to Ambient | 70   | $^\circ\text{C}/\text{W}$ |



**ELECTRICAL CHARACTERISTICS**

$T_C=25^{\circ}\text{C}$  unless otherwise specified

| SYMBOL         | PARAMETER                            | CONDITIONS   | MIN | TYP. | MAX        | UNIT          |
|----------------|--------------------------------------|--|-----|------|------------|---------------|
| $V_{CEO(SUS)}$ | Collector-Emitter Sustaining Voltage | $I_C= 50\text{mA}; I_B= 0$   | 150 |      |            | V             |
| $V_{CE(sat)}$  | Collector-Emitter Saturation Voltage | $I_C= 5\text{A}; I_B= 0.5\text{A}$                                   |     |      | 1.0        | V             |
| $V_{BE(sat)}$  | Base-Emitter Saturation Voltage      | $I_C= 5\text{A}; I_B= 0.5\text{A}$                                   |     |      | 1.2        | V             |
| $I_{CES}$      | Collector Cutoff Current             | $V_{CE}= 330\text{V}; V_{BE}= 0$<br>$V_{CE}= 200\text{V}; V_{BE}= 0$ |     |      | 5.0<br>0.1 | mA            |
| $I_{EBO}$      | Emitter Cutoff Current               | $V_{EB}= 6\text{V}; I_C=0$   |     |      | 1.0        | mA            |
| $f_T$          | Current-Gain—Bandwidth Product       | $I_C= 0.5\text{A}; V_{CE}= 10\text{V}$                               | 10  |      |            | MHz           |
| $C_{OB}$       | Output Capacitance                   | $I_E= 0; V_{CB}= 10\text{V}; f_{test}= 1.0\text{MHz}$                |     | 80   |            | pF            |
| $t_f$          | Fall Time                            | $I_C= 5\text{A}; I_{B1}= -I_{B2}= 0.5\text{A}$                       |     |      | 0.75       | $\mu\text{s}$ |