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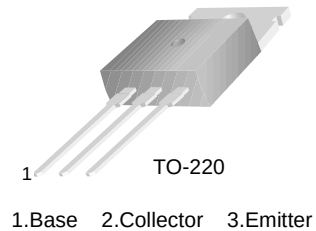
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# KSD363

KSD363

## B/W TV Horizontal Deflection Output

- Collector-Base Voltage :  $V_{CBO}=300V$
- Collector Current :  $I_C=6A$
- Collector Dissipation :  $P_C=40W(T_C=25^{\circ}C)$



## NPN Epitaxial Silicon Transistor

### Absolute Maximum Ratings $T_C=25^{\circ}C$ unless otherwise noted

| Symbol    | Parameter                                   | Value      | Units       |
|-----------|---------------------------------------------|------------|-------------|
| $V_{CBO}$ | Collector-Base Voltage                      | 300        | V           |
| $V_{CEO}$ | Collector-Emitter Voltage                   | 120        | V           |
| $V_{EBO}$ | Emitter-Base Voltage                        | 8          | V           |
| $I_C$     | Collector Current                           | 6          | A           |
| $P_C$     | Collector Dissipation ( $T_C=25^{\circ}C$ ) | 40         | W           |
| $T_J$     | Junction Temperature                        | 150        | $^{\circ}C$ |
| $T_{STG}$ | Storage Temperature                         | - 55 ~ 150 | $^{\circ}C$ |

### Electrical Characteristics $T_C=25^{\circ}C$ unless otherwise noted

| Symbol        | Parameter                            | Test Condition        | Min. | Typ. | Max. | Units |
|---------------|--------------------------------------|-----------------------|------|------|------|-------|
| $BV_{CBO}$    | Collector-Base Breakdown Voltage     | $I_C=1mA, I_E=0$      | 300  |      |      | V     |
| $BV_{CEO}$    | Collector-Emitter Breakdown Voltage  | $I_C=20mA, I_B=0$     | 120  |      |      | V     |
| $BV_{EBO}$    | Emitter-Base Breakdown Voltage       | $I_E=1mA, I_C=0$      | 8    |      |      | V     |
| $I_{CBO}$     | Collector Cut-off Current            | $V_{CB}=250V, I_E=0$  |      |      | 1    | mA    |
| $h_{FE}$      | DC Current Gain                      | $V_{CE}=5V, I_C=1A$   | 40   |      | 240  |       |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=1A, I_B=0.1A$    |      |      | 1    | V     |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage      | $I_C=1A, I_B=0.1A$    |      |      | 1.5  | V     |
| $f_T$         | Current Gain Bandwidth Product       | $V_{CE}=5V, I_C=0.5A$ |      | 10   |      | MHz   |

## $h_{FE}$ Classification

| Classification | R       | O        | Y         |
|----------------|---------|----------|-----------|
| $h_{FE}$       | 40 ~ 80 | 70 ~ 140 | 120 ~ 240 |

## Typical Characteristics

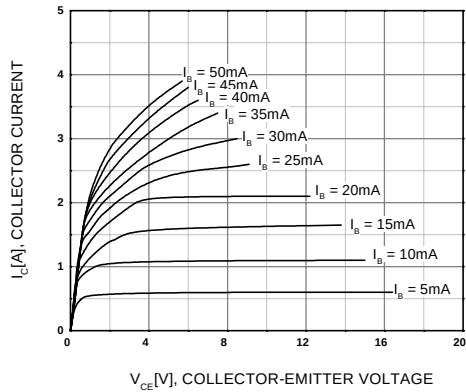


Figure 1. Static Characteristic

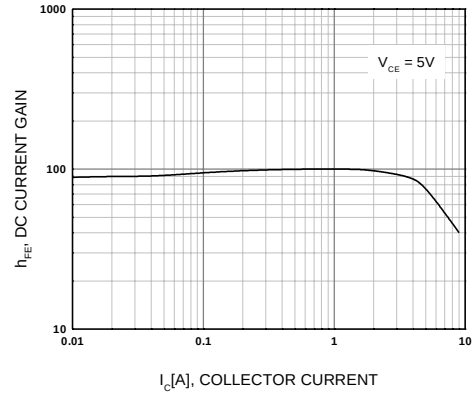


Figure 2. DC current Gain

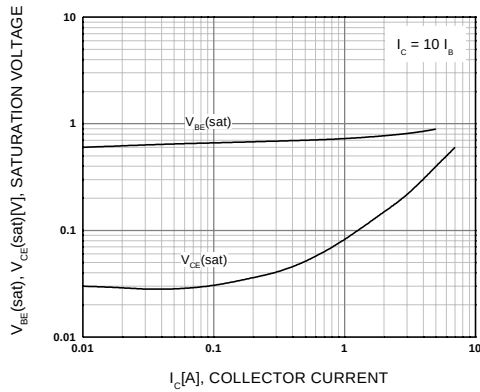


Figure 3. Base-Emitter Saturation Voltage  
Collect-Emmitter Saturation Voltage

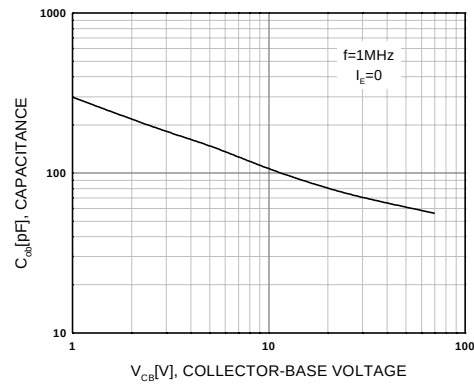


Figure 4. Collector Output Capacitance

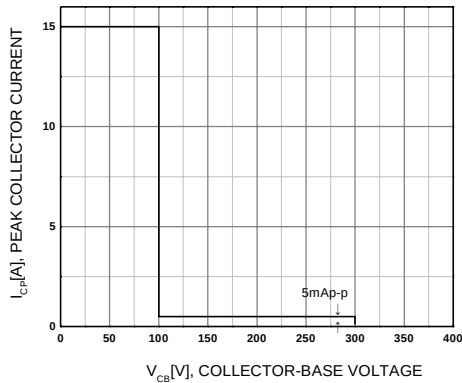


Figure 5. Safe Operating (On Horizontal  
Deflection Output Circuit)

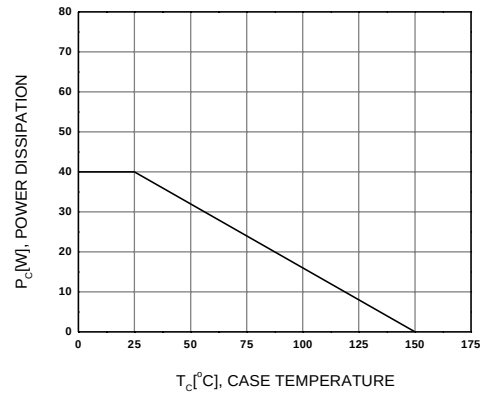
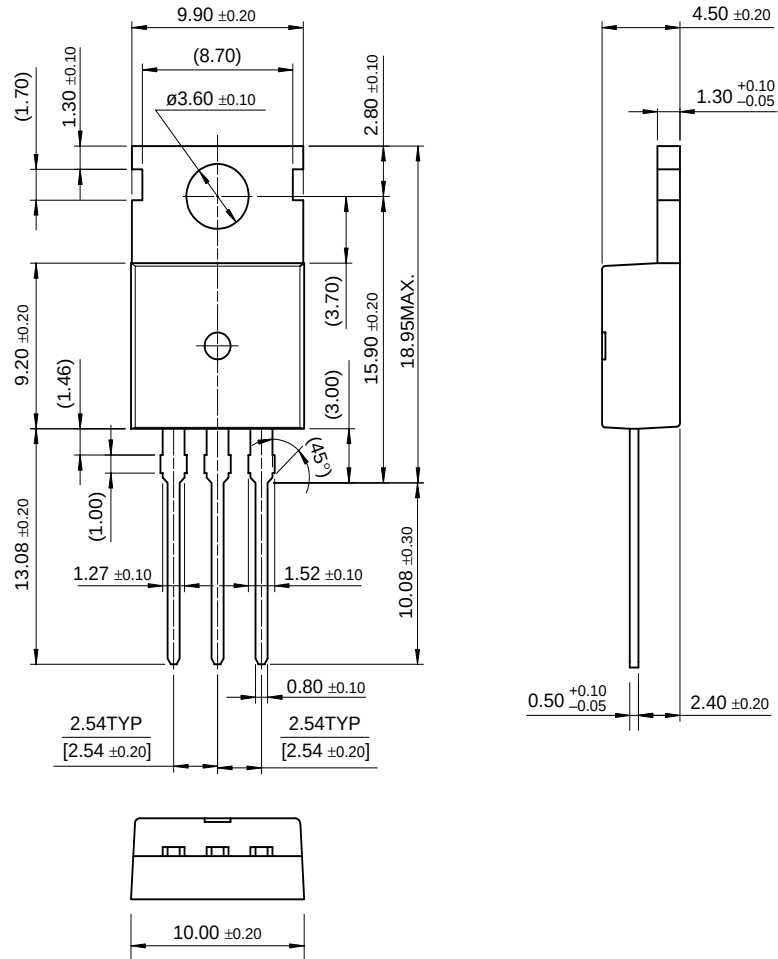


Figure 6. Power Derating

# Package Dimensions

## TO-220



Dimensions in Millimeters

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