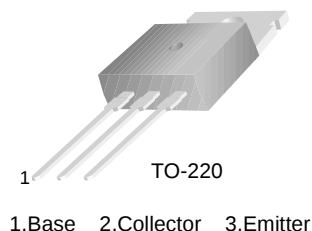


## KSD362

KSD362

### B/W TV Horizontal Deflection Output

- Collector-Base Voltage :  $V_{CBO}=150V$
- Collector Current :  $I_C=5A$
- 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                      | 150        | V           |
| $V_{CEO}$ | Collector-Emitter Voltage                   | 70         | V           |
| $V_{EBO}$ | Emitter-Base Voltage                        | 8          | V           |
| $I_C$     | Collector Current                           | 5          | 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     | $I_C = 1mA, I_E = 0$         | 150  |      |      | V       |
| $BV_{CEO}$    | Collector-Emitter Breakdown Voltage  | $I_C = 2mA, R_{BE} = \infty$ | 70   |      |      | V       |
| $BV_{EBO}$    | Emitter-Base Breakdown Voltage       | $I_E = 1mA, I_C = 0$         | 8    |      |      | V       |
| $I_{CBO}$     | Collector Cut-off Current            | $V_{CB} = 100V, I_E = 0$     |      |      | 20   | $\mu A$ |
| $h_{FE}$      | DC Current Gain                      | $V_{CE} = 5V, I_C = 5A$      | 20   |      | 140  |         |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = 5A, I_B = 0.5A$       |      |      | 1    | V       |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage      | $I_C = 5A, I_B = 0.5A$       |      |      | 1.5  | V       |
| $f_T$         | Current Gain Bandwidth Product       | $V_{CE} = 5V, I_C = 0.5A$    |      | 10   |      | MHz     |

### $h_{FE}$ Classification

| Classification | N       | R       | O        |
|----------------|---------|---------|----------|
| $h_{FE}$       | 20 ~ 50 | 40 ~ 80 | 70 ~ 140 |

# Typical Characteristics

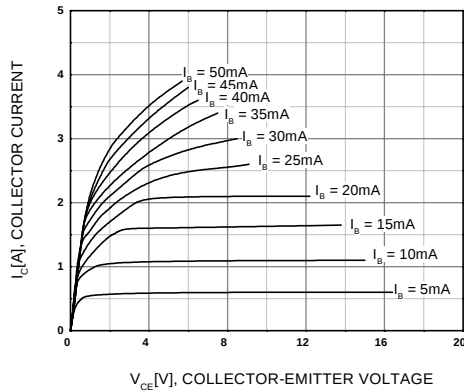


Figure 1. Static Characteristic

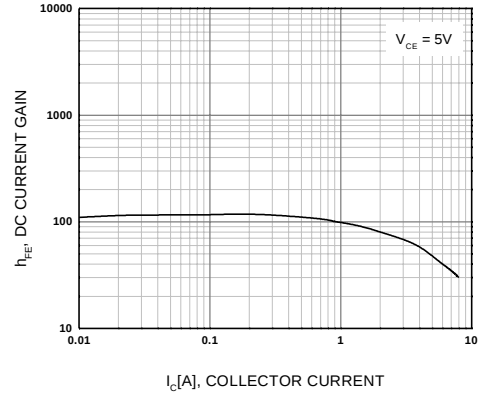


Figure 2. DC current Gain

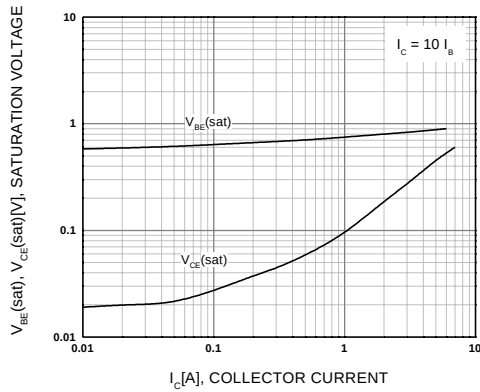


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

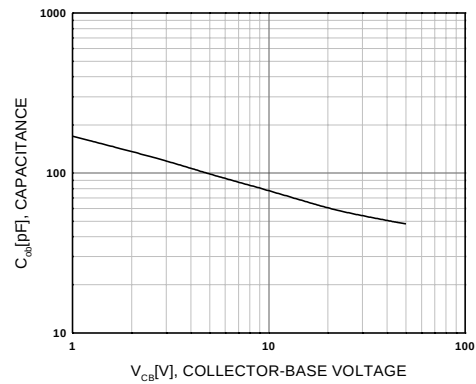


Figure 4. Collector Output Capacitance

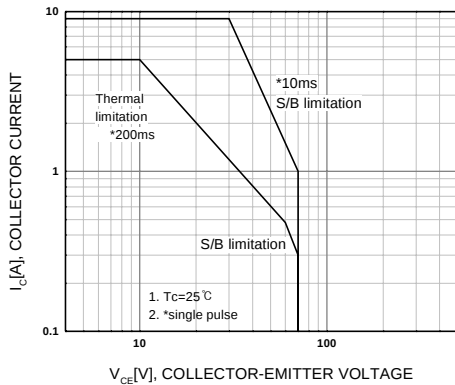


Figure 5. Safe Operating Area

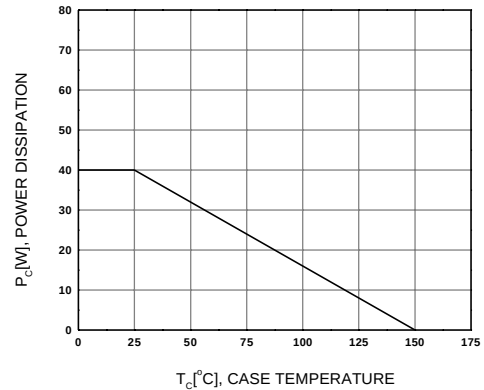


Figure 6. Power Derating

# Package Dimensions

## TO-220



Dimensions in Millimeters

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