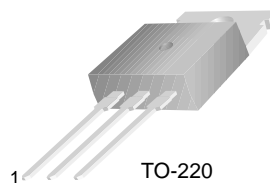


# KSB546

## TV Vertical Deflection Output

- Collector-Base Voltage :  $V_{CBO} = -200V$
- Collector Current :  $I_C = -2A$
- Collector Dissipation :  $P_C = 25W$  ( $T_C = 25^\circ C$ )
- Complement to KSD401



TO-220  
1.Base 2.Collector 3.Emitter

## PNP Epitaxial Silicon Transistor

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

| Symbol    | Parameter                                    | Value      | Units      |
|-----------|--|------------|------------|
| $V_{CBO}$ | Collector-Base Voltage                       | - 200      | V          |
| $V_{CEO}$ | Collector-Emitter Voltage                    | - 150      | V          |
| $V_{EBO}$ | Emitter-Base Voltage                         | - 5        | V          |
| $I_C$     | Collector Current(DC)Y                       | - 2        | A          |
| $P_C$     | Collector Dissipation ( $T_C = 25^\circ C$ ) | 25         | 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     | $I_C = - 500\mu A, I_E = 0$    | - 200 |      |      | V       |
| $BV_{CEO}$    | Collector-Emitter Breakdown Voltage  | $I_C = - 10mA, I_B = 0$        | - 150 |      |      | V       |
| $BV_{EBO}$    | Emitter-Base Breakdown Voltage       | $I_E = - 500\mu A, I_C = 0$    | - 5   |      |      | V       |
| $I_{CBO}$     | Collector Cut-off Current            | $V_{CB} = - 150V, I_E = 0$     |       |      | - 50 | $\mu A$ |
| $h_{FE}$      | DC Current Gain                      | $V_{CE} = - 10V, I_E = - 0.4A$ | 40    |      | 240  |         |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = - 500mA, I_B = - 50mA$  |       |      | - 1  | V       |
| $f_T$         | Current Gain Bandwidth Product       | $V_{CE} = - 10V, I_C = - 0.4A$ |       | 5    |      | MHZ     |

## $h_{FE}$ Classification

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

# Typical Characteristics

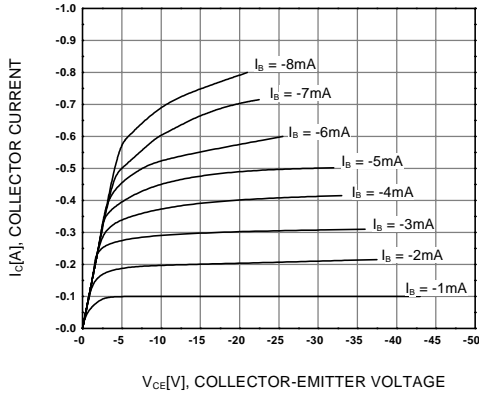


Figure 1. Static Characteristic

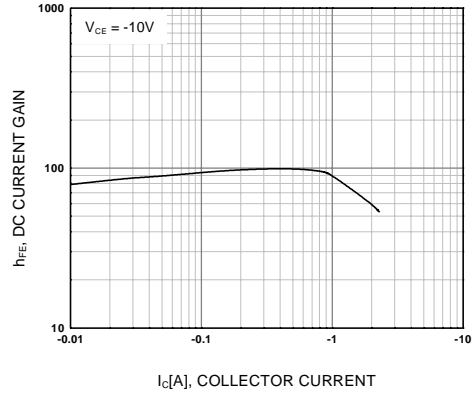


Figure 2. DC current Gain

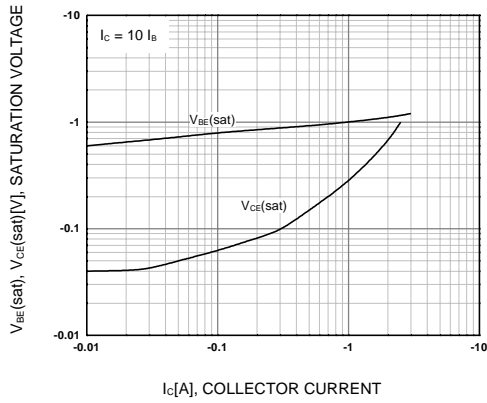


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

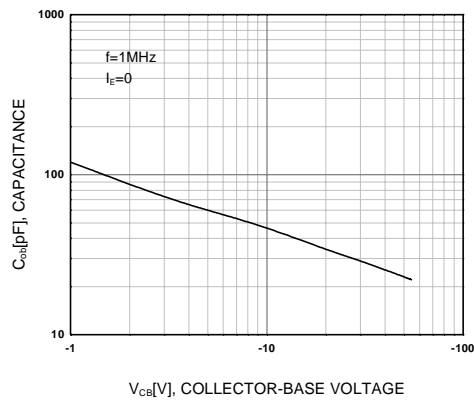


Figure 4. Collector Output Capacitance

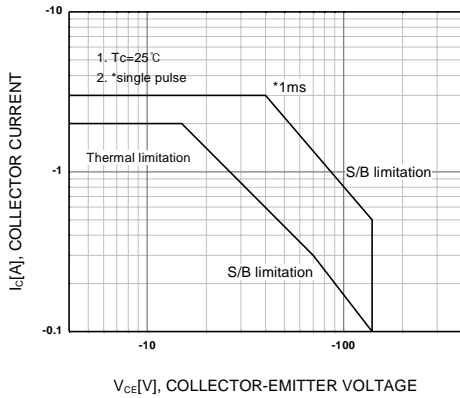


Figure 5. Safe Operating Area

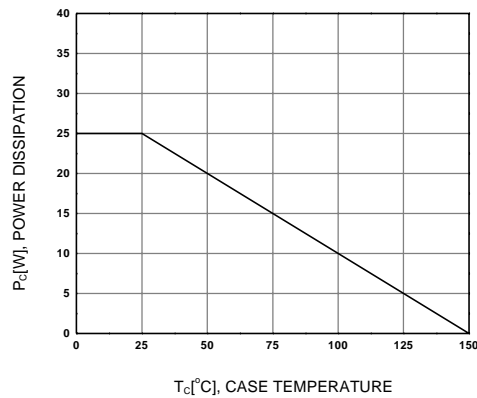


Figure 6. Power Derating

# Package Dimensions

## TO-220



Dimensions in Millimeters

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| CROSSVOLT™           | POP™          | UHC™        |
| E <sup>2</sup> CMOS™ | PowerTrench®  | VCX™        |
| FACT™                | QFET™         |             |
| FACT Quiet Series™   | QS™           |             |
| FAST®                | Quiet Series™ |             |
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| GTO™                 | SuperSOT™-6   |             |

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