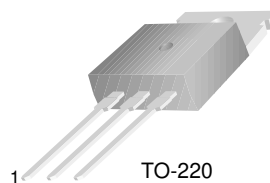


KSD401

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 KSB546



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

NPN 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 | 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 | μA |
| h_{FE} | DC Current Gain | $V_{CE} = 10V, I_C = 0.4A$ | 120 | | 400 | |
| $V_{CE(sat)}$ | 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 | Y | G |
|----------------|-----------|-----------|
| h_{FE} | 120 ~ 240 | 200 ~ 400 |

Typical Characteristics

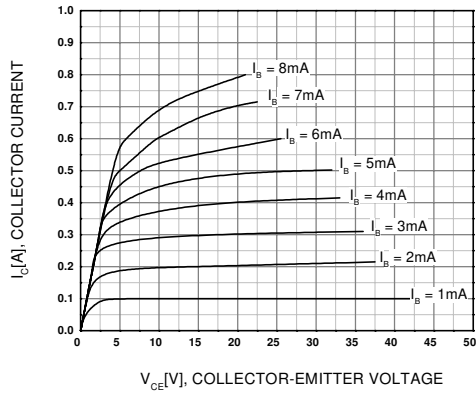


Figure 1. Static Characteristic

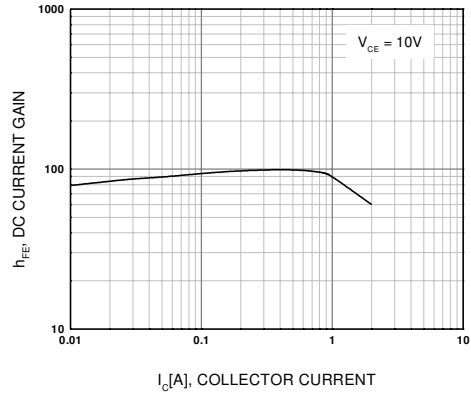


Figure 2. DC current Gain

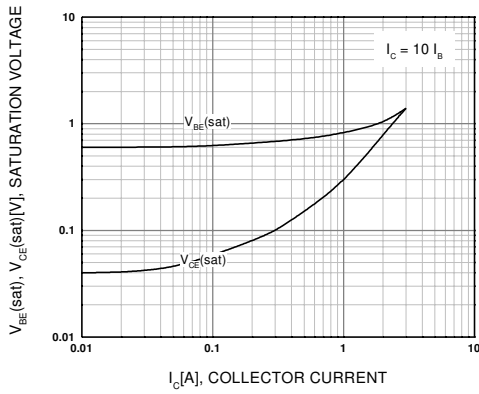


Figure 3. Base-Emitter Saturation Voltage
Collector-Emmitter Saturation Voltage

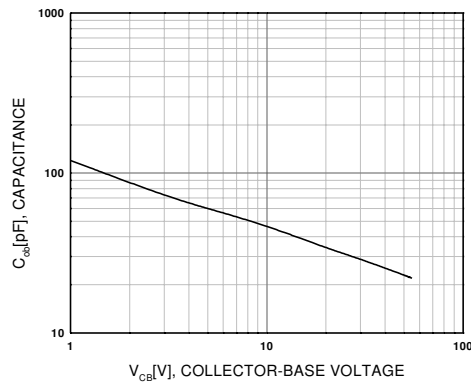


Figure 4. Collector Output Capacitance

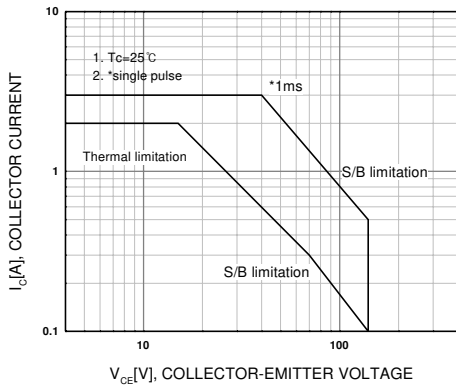


Figure 5. Safe Operating Area

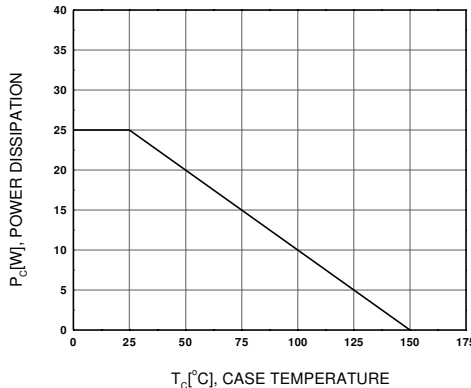
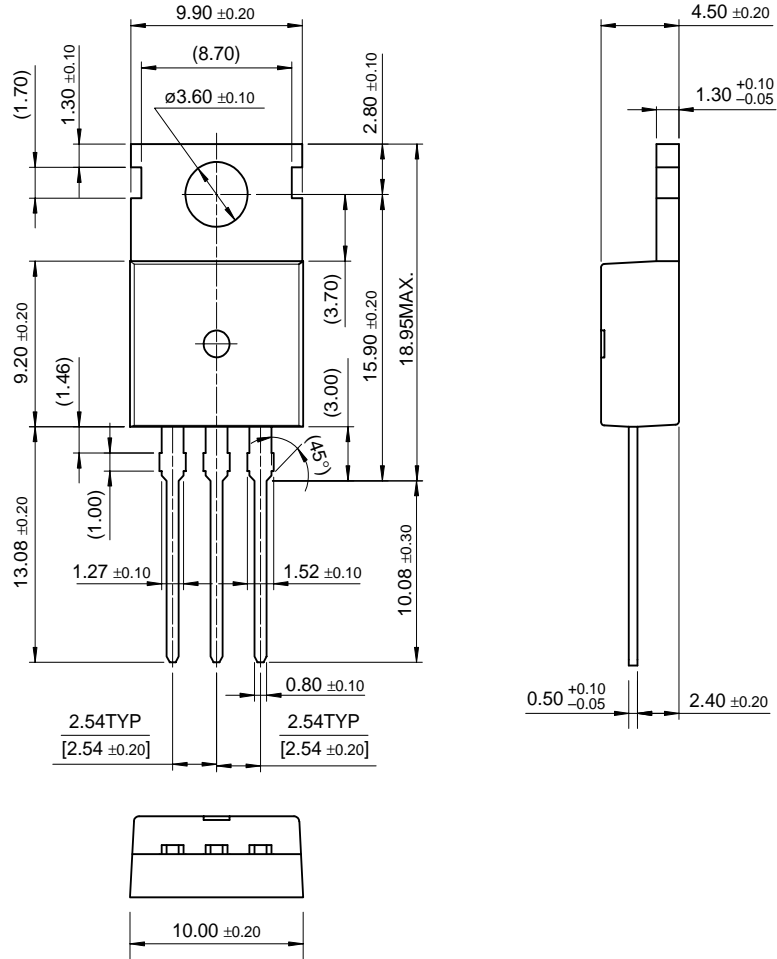


Figure 6. Power Derating

Package Dimensions

TO-220



Dimensions in Millimeters

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