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KSC2330

Color TV Chroma Output

- Collector-Base Voltage : $V_{CBO}=300V$
- Current Gain Bandwidth Product : $f_T=50MHz$ (TYP.)



NPN Epitaxial Silicon Transistor

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

| Symbol | Parameter | Ratings | Units |
|-----------|-----------------------------|------------|------------|
| V_{CBO} | Collector-Base Voltage | 300 | V |
| V_{CEO} | Collector-Emitter Voltage | 300 | V |
| V_{EBO} | Emitter-Base Voltage | 7 | V |
| I_C | Collector Current | 100 | mA |
| P_C | Collector Power Dissipation | 1 | W |
| T_J | Junction Temperature | 150 | $^\circ C$ |
| T_{STG} | Storage Temperature | -55 ~ +150 | $^\circ C$ |

Electrical Characteristics $T_a=25^\circ C$ unless otherwise notd

| Symbol | Parameter | Test Condition | Min. | Typ. | Max. | Units |
|---------------|--------------------------------------|-----------------------------|------|------|------|---------|
| BV_{CBO} | Collector-Base Breakdown Voltage | $I_C=100\mu A, I_E=0$ | 300 | | | V |
| BV_{CEO} | Collector-Emitter Breakdown Voltage | $I_C=5mA, I_B=0$ | 300 | | | V |
| BV_{EBO} | Emitter-Base Breakdown Voltage | $I_E=100\mu A, I_C=0$ | 7 | | | V |
| I_{CBO} | Collector Cut-off Current | $V_{CB}=200V, I_E=0$ | | | 0.1 | μA |
| h_{FE} | DC Current Gain | $V_{CE}=10V, I_C=20mA$ | 40 | | 240 | |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=10mA, I_B=1mA$ | | | 0.5 | V |
| f_T | Current Gain Bandwidth Product | $V_{CE}=30V, I_C=10mA$ | | 50 | | MHz |
| C_{ob} | Output Capacitance | $V_{CB}=10V, I_E=0, f=1MHz$ | | 4 | | pF |

h_{FE} Classification

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

Typical Characteristics

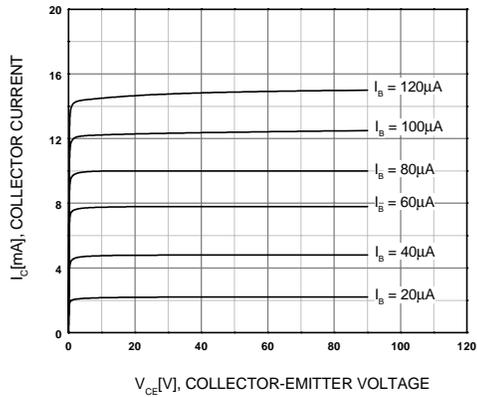


Figure 1. Static Characteristic

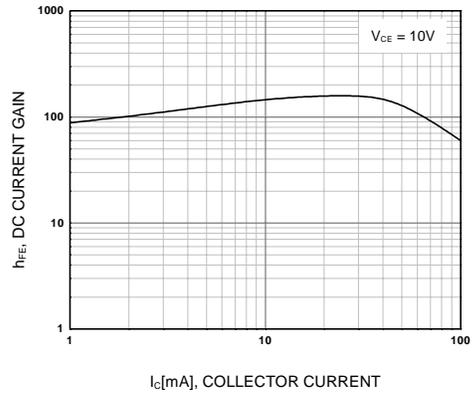


Figure 2. DC current Gain

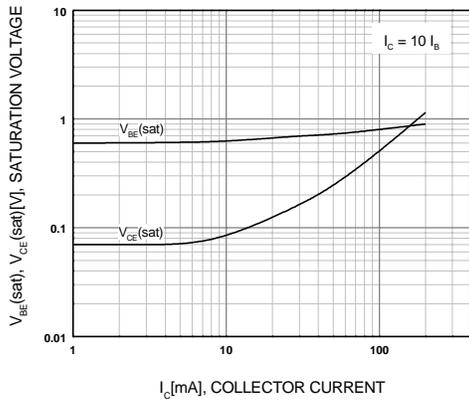


Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

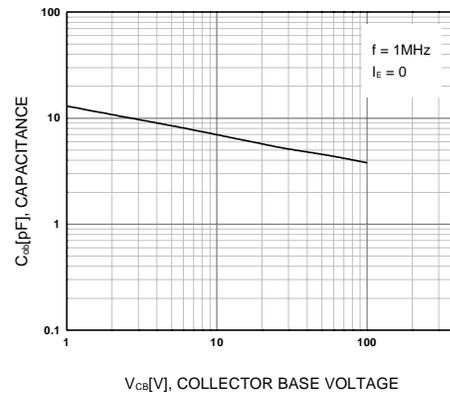


Figure 4. Collector Output Capacitance

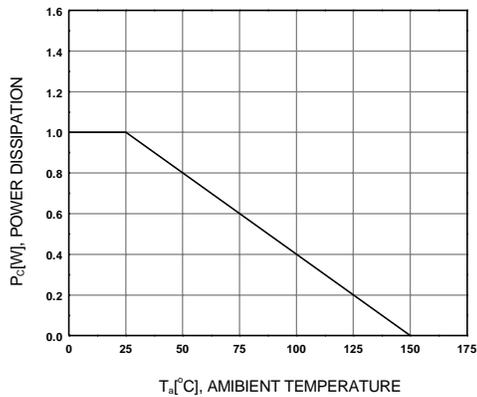
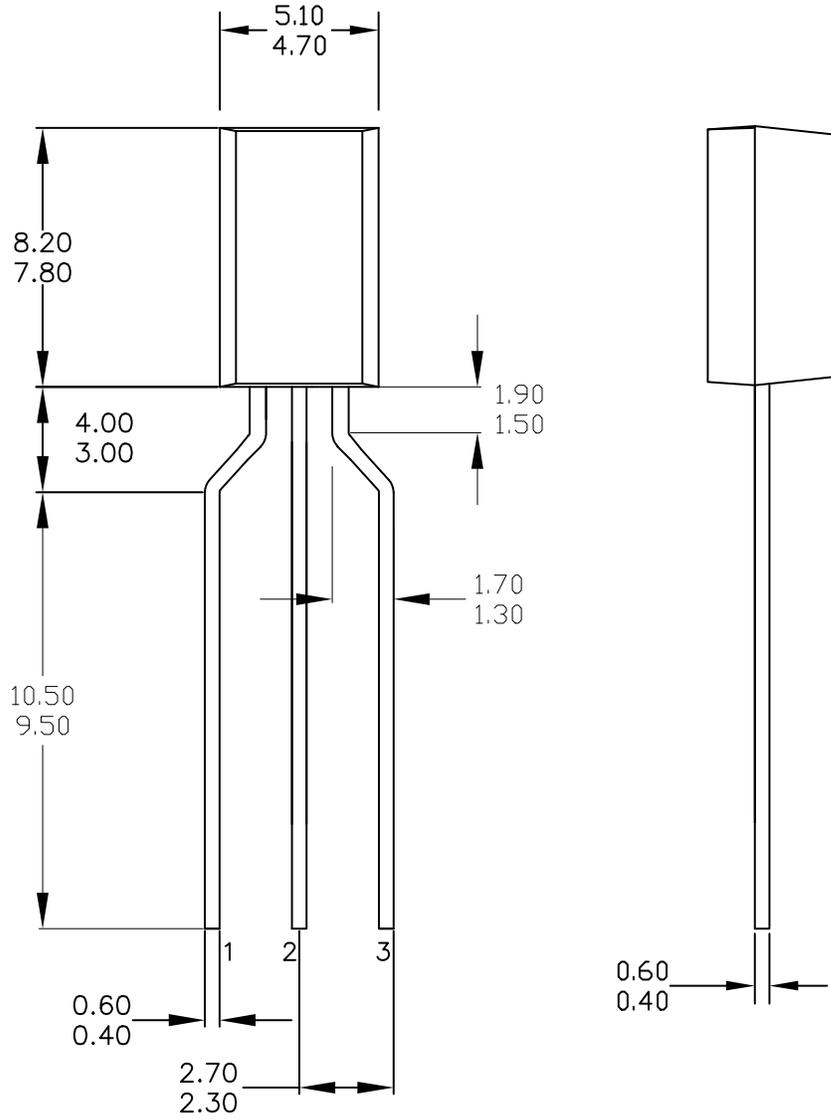


Figure 5. Power Derating

Package Dimensions

TO-92 3 8.0x4.9 (LEADFORMED)
 CASE 135AM
 ISSUE A



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Dimensions in Millimeters

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