

KSE13001

Color TV Chroma Output

- Collector-Base Voltage: V_{CBO}=400V
 Current Gain Bandwidth Product: f_T=50MHz (TYP.)



1. Base 2. Collector 3. Emitter

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a =25°C unless otherwise noted

| Symbol | Parameter | Ratings | Units |
|------------------|-----------------------------|------------|-------|
| V _{CBO} | Collector-Base Voltage | 400 | V |
| V _{CEO} | Collector-Emitter Voltage | 400 | V |
| V _{EBO} | Emitter-Base Voltage | 7 | V |
| I _C | Collector Current | 100 | mA |
| P _C | Collector Power Dissipation | 600 | mW |
| T _J | Junction Temperature | 150 | °C |
| T _{STG} | Storage Temperature | -55 ~ +150 | °C |

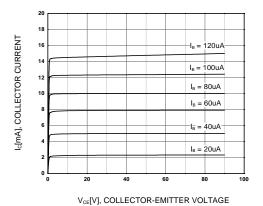
Electrical Characteristics T_a =25°C unless otherwise noted

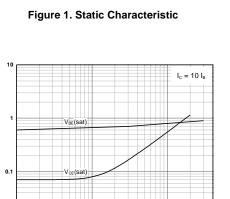
| Symbol | Parameter | Test Condition | Min. | Тур. | Max. | Units |
|-----------------------|--------------------------------------|---|------|------|------|-------|
| BV _{CBO} | Collector-Base Breakdown Voltage | $I_C=100\mu A, I_E=0$ | 400 | | | V |
| BV _{CEO} | Collector-Emitter Breakdown Voltage | I _C =5mA, I _B =0 | 400 | | | 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 | μΑ |
| h _{FE} | DC Current Gain | V _{CE} =10V, I _C =20mA | 40 | | 80 | |
| 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 | 0 |
|-----------------|---------|---------|
| h _{FE} | 40 ~ 65 | 55 ~ 80 |

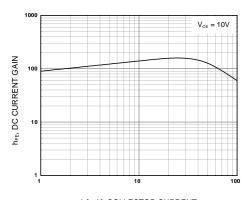
Typical Characteristics





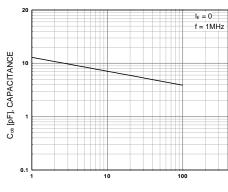
I_C[mA], COLLECTOR CURRENT

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



I_c[mA], COLLECTOR CURRENT

Figure 2. DC current Gain



 V_{CB} [V], COLLECTOR-BASE VOLTAGE

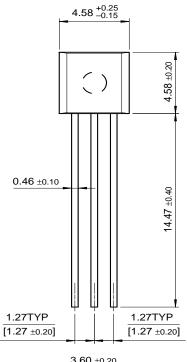
Figure 4. Collector Output Capacitance

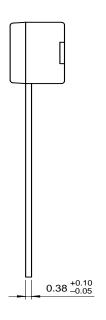
VBE(Sat), VCE(Sat)[VJ, SATURATION VOLTAGE

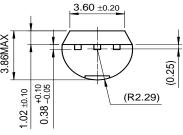
0.01

Package Demensions

TO-92







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