

KSC1507

Color TV Chroma Output

- High Collector-Emitter Voltage : $V_{CEO}=300V$
- Current Gain Bandwidth Product : $f_T=40MHz$ (Min.)



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	300	V
V_{CEO}	Collector-Emitter Voltage	300	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current	0.2	mA
P_C	Collector Dissipation ($T_C=25^\circ C$)	15	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	$I_C = 100\mu A, I_E = 0$	300			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C = 10mA, I_B = 0$	300			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = -10\mu A, I_C = 0$	7			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 200V, I_E = 0$			100	μA
h_{FE}	DC Current Gain	$V_{CE} = 10V, I_C = 10mA$	40		240	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 50mA, I_B = 5mA$			2.0	V
f_T	Current Gain Bandwidth Product	$V_{CE} = 30V, I_C = 10mA$	40	80		MHz
C_{ob}	Output Capacitance	$V_{CB} = 50V, I_E = 0, f = 1MHz$		4		pF

h_{FE} Classification

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

Typical Characteristics

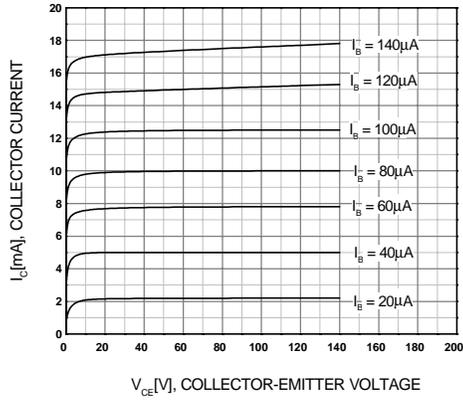


Figure 1. Static Characteristic

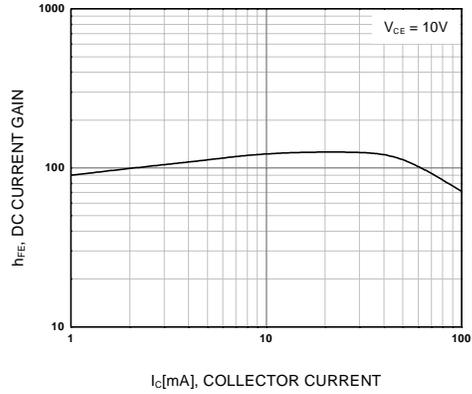


Figure 2. DC current Gain

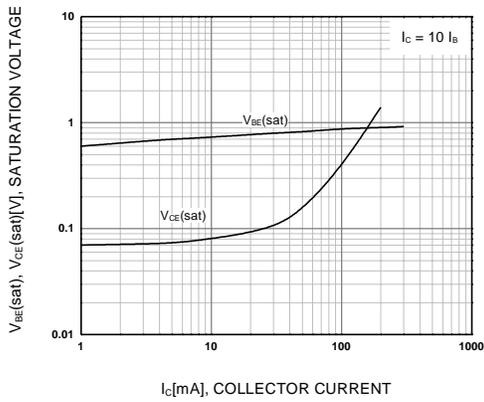


Figure 3. Base-Emitter Saturation Voltage
Collector-Emmitter Saturation Voltage

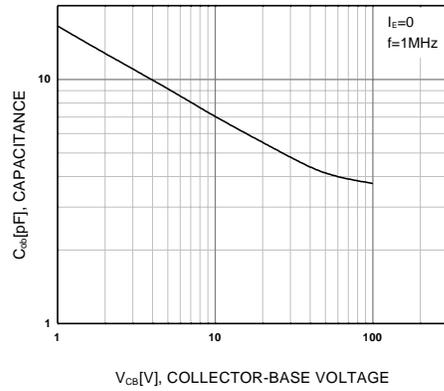


Figure 4. Collector Output Capacitance

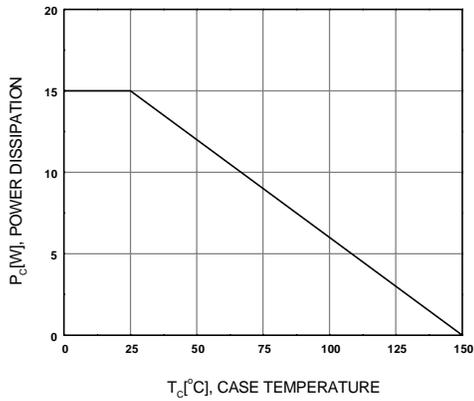
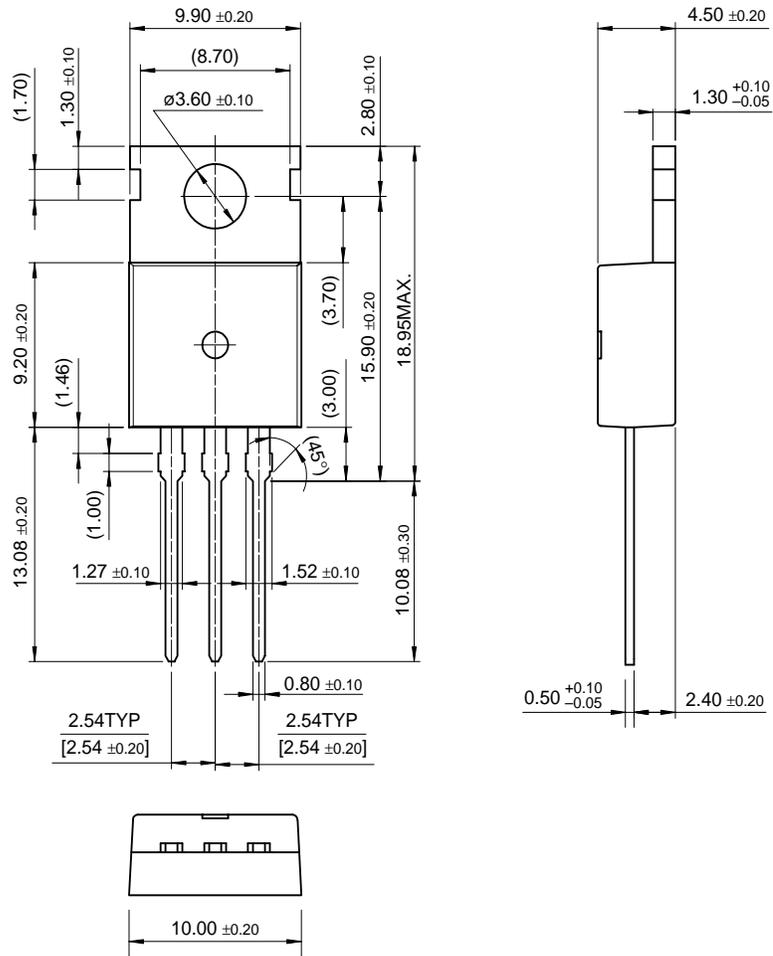


Figure 5. Power Derating

Package Dimensions

TO-220



Dimensions in Millimeters

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