



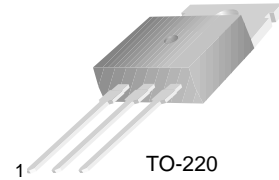
**THE DATASHEET OF  
KSC1507YTU**



# 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	$\mu A$
$h_{FE}$	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

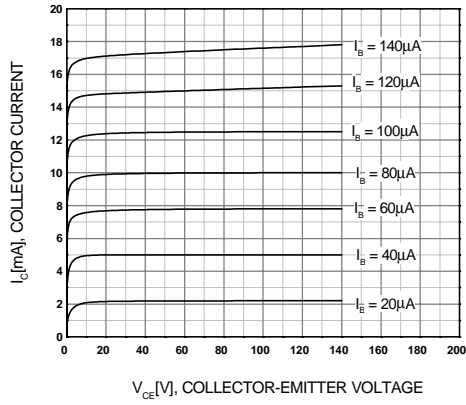


Figure 1. Static Characteristic

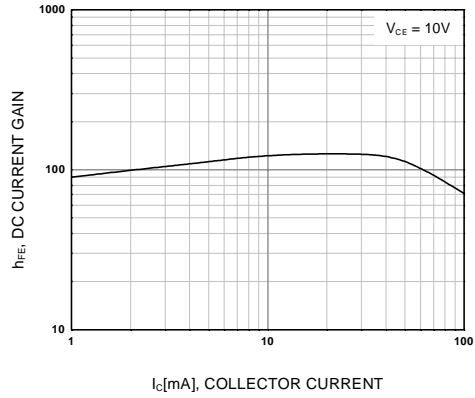


Figure 2. DC current Gain

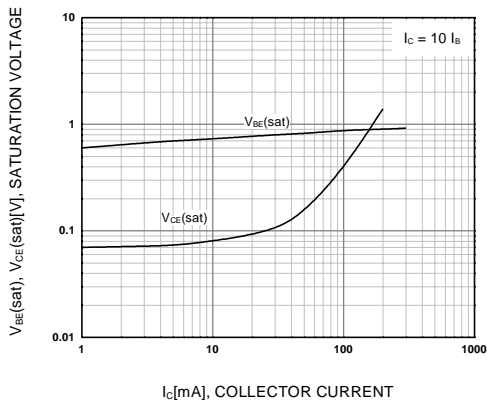


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

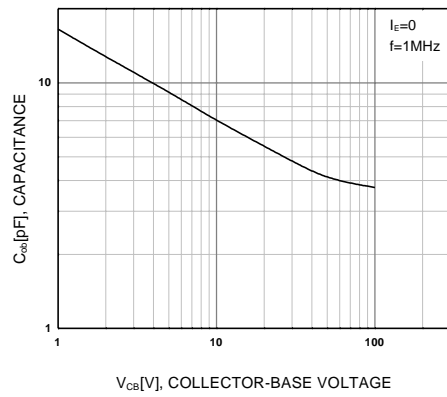


Figure 4. Collector Output Capacitance

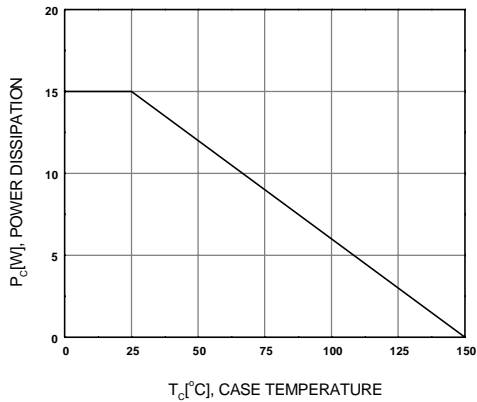
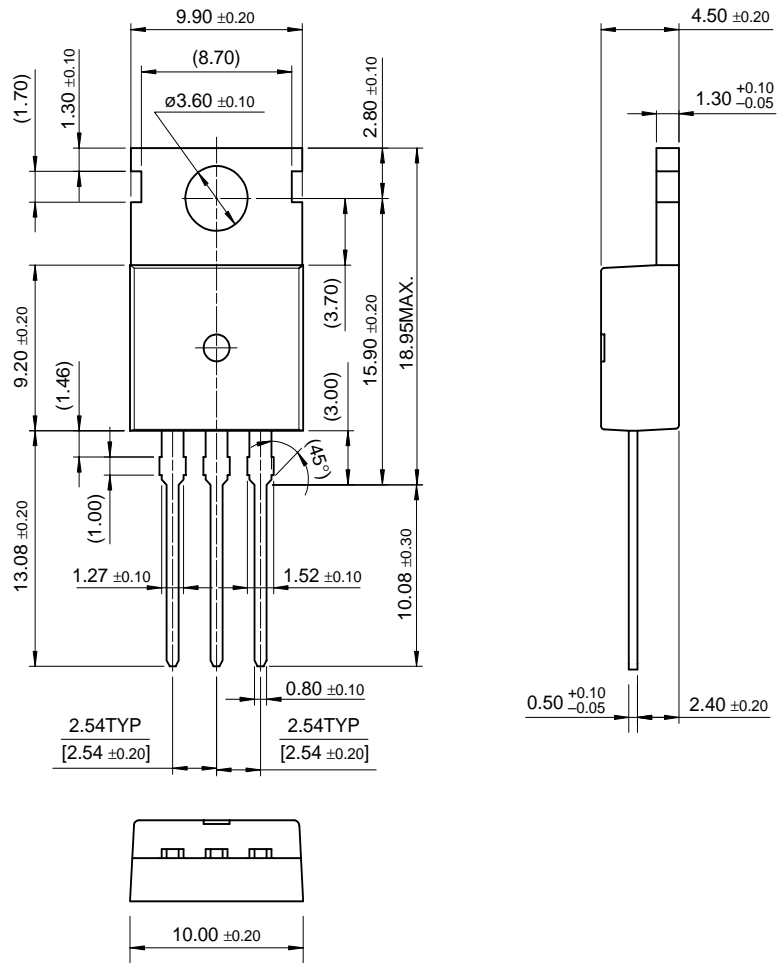


Figure 5. Power Derating

# Package Dimensions

KSC1507

## TO-220



Dimensions in Millimeters

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