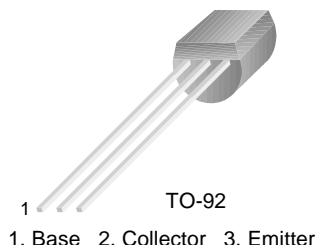


# KSE13001

## Color TV Chroma Output

- Collector-Base Voltage :  $V_{CBO}=400V$
- 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	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	$^\circ C$
$T_{STG}$	Storage Temperature	-55 ~ +150	$^\circ C$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C=100\mu A, I_E=0$	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	$\mu A$
$h_{FE}$	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	O
$h_{FE}$	40 ~ 65	55 ~ 80

# Typical Characteristics

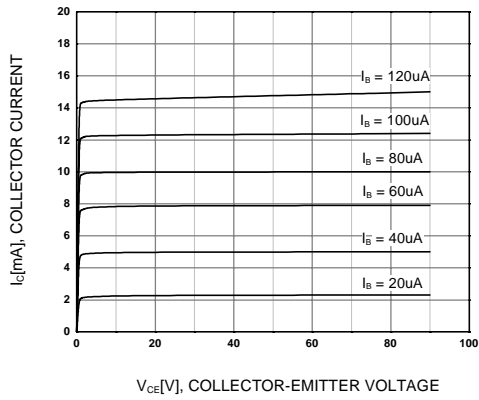


Figure 1. Static Characteristic

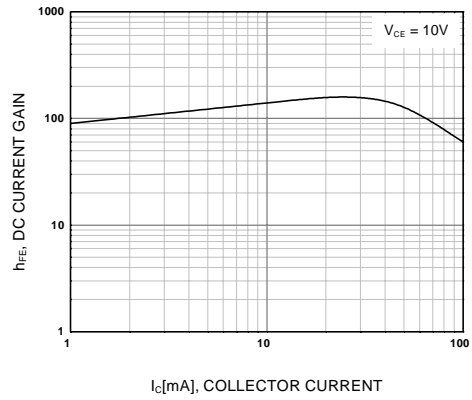


Figure 2. DC current Gain

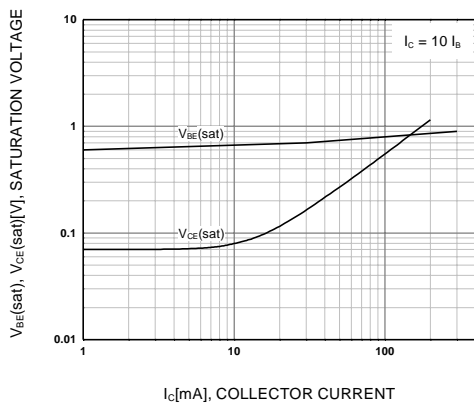


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

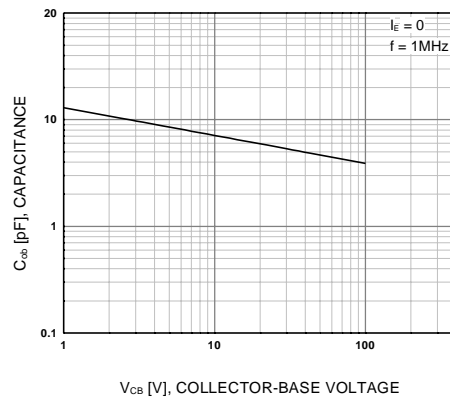
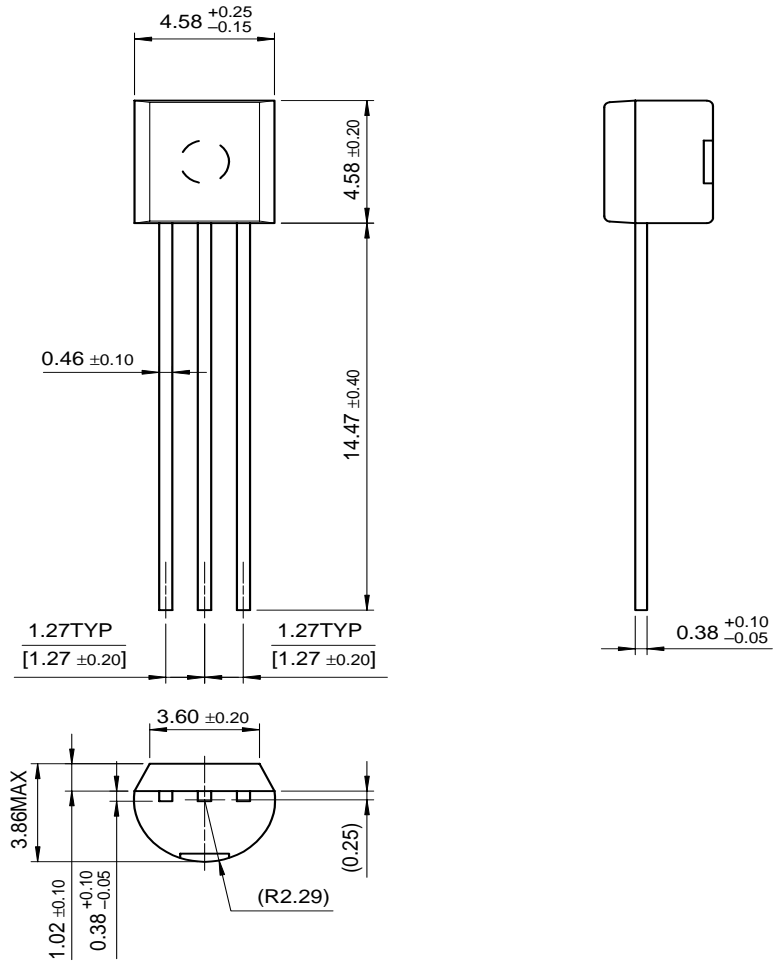


Figure 4. Collector Output Capacitance

# Package Dimensions

KSE13001

## TO-92



Dimensions in Millimeters

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### Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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KSE13001  
NPN Epitaxial Silicon Transistor

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Features

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

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Applications

**Color TV Chroma Output**

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Product status/pricing/packaging

Product	Product status	Pricing*	Package type	Leads	Packing method
KSE13001H1BU	Full Production	\$0.054	<a href="#">TO-92</a>	3	BULK
KSE13001H1MBU	Full Production	\$0.054	<a href="#">TO-92</a>	3	BULK
KSE13001H2BU	Full Production	\$0.054	<a href="#">TO-92</a>	3	BULK

\* 1,000 piece Budgetary Pricing

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