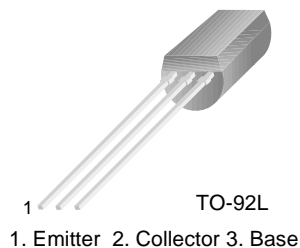


## KSC2383

**Color TV Audio Output & Color TV Vertical Deflection Output**



### NPN Epitaxial Silicon Transistor

**Absolute Maximum Ratings**  $T_a=25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Ratings	Units
$V_{CBO}$	Collector-Base Voltage	160	V
$V_{CEO}$	Collector-Emitter Voltage	160	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current	1	A
$I_B$	Base Current	0.5	A
$P_C$	Collector Power Dissipation	900	mW
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-55 ~ 150	$^\circ\text{C}$

**Electrical Characteristics**  $T_a=25^\circ\text{C}$  unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$I_{CBO}$	Collector Cut-off Current	$V_{CB}=150\text{V}, I_E=0$			1	$\mu\text{A}$
$I_{EBO}$	Emitter Cut-off Current	$V_{EB}=6\text{V}, I_C=0$			1	$\mu\text{A}$
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C=10\text{mA}, I_B=0$	160			V
$h_{FE}$	DC Current Gain	$V_{CE}=5\text{V}, I_C=200\text{mA}$	60		320	
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C=500\text{mA}, I_B=50\text{mA}$			1.5	V
$V_{BE}(\text{on})$	Base-Emitter On Voltage	$V_{CE}=5\text{V}, I_C=5\text{mA}$	0.45		0.75	V
$f_T$	Current Gain Bandwidth Product	$V_{CE}=5\text{V}, I_C=200\text{mA}$	20	100		MHz
$C_{ob}$	Output Capacitance	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$			20	pF

### $h_{FE}$ Classification

Classification	R	O	Y
$h_{FE}$	60 ~ 120	100 ~ 200	160 ~ 320

# Typical Characteristics

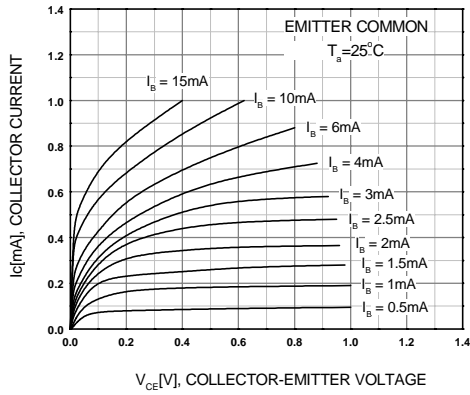


Figure 1. Static Characteristic

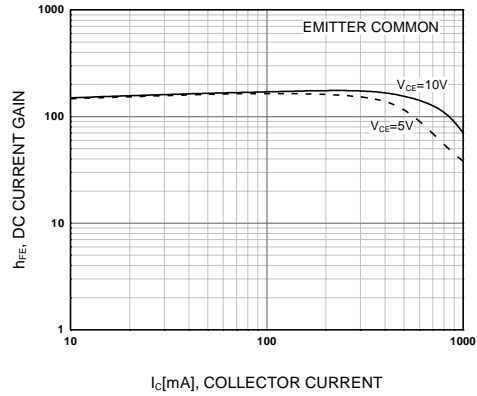


Figure 2. DC current Gain

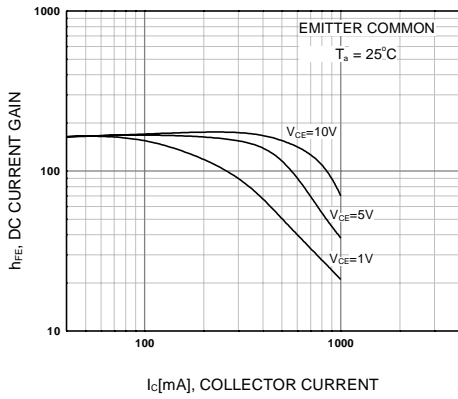


Figure 3. DC current Gain

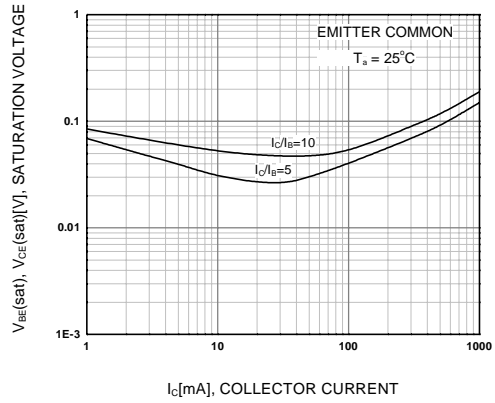


Figure 4. Collector-Emitter Saturation Voltage

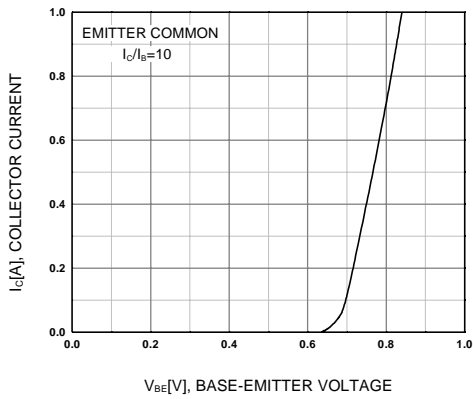


Figure 5. Base-Emitter On Voltage

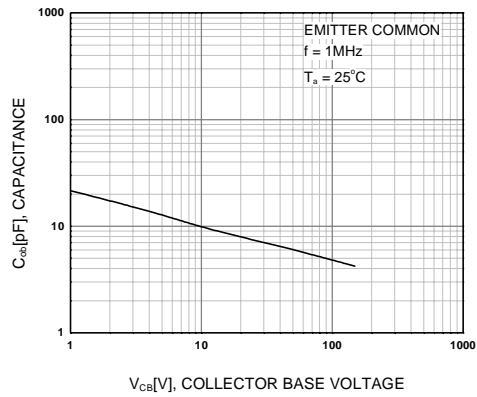
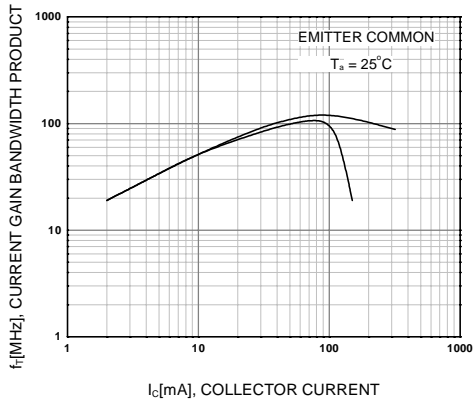
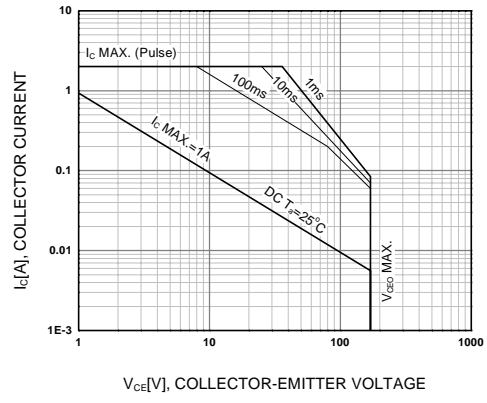


Figure 6. Collector Output Capacitance

**Typical Characteristics** (Continued)



**Figure 7. Current Gain Bandwidth Product**

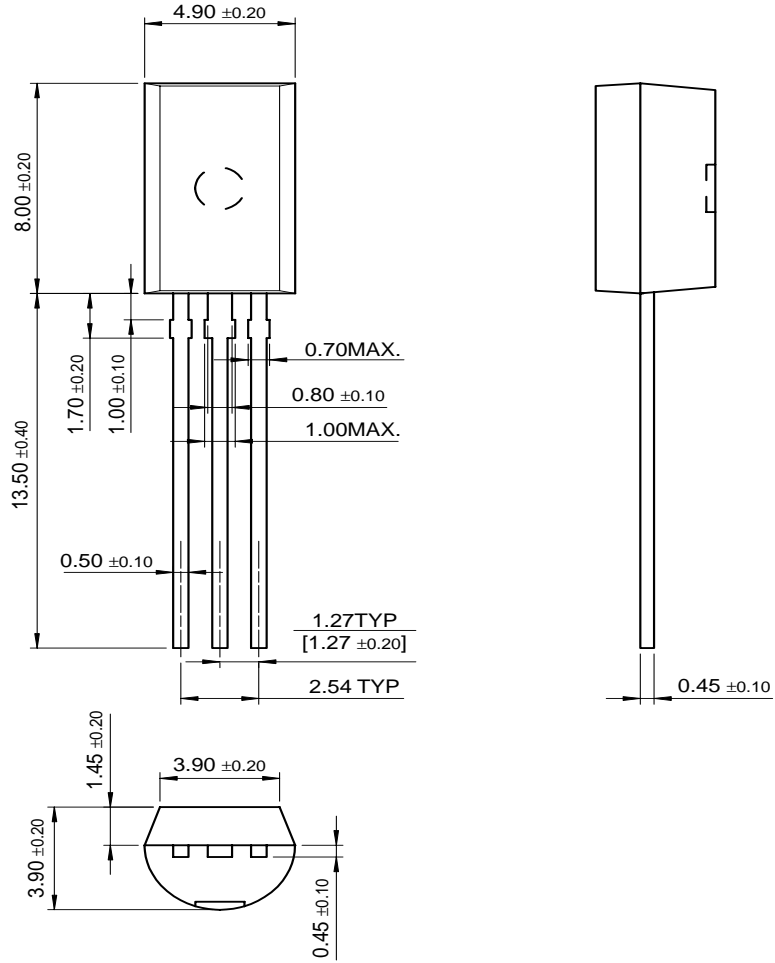


**Figure 8. Safe Operating Area**

# Package Dimensions

KSC2383

## TO-92L



Dimensions in Millimeters

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ActiveArray <sup>™</sup>	FACT Quiet series <sup>™</sup>	ISOPLANAR <sup>™</sup>	POP <sup>™</sup>	Stealth <sup>™</sup>
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## PRODUCT STATUS DEFINITIONS

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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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