

### KSC2383

# Color TV Audio Output & Color TV Vertical Deflection Output



### **NPN Epitaxial Silicon Transistor**

### **Absolute Maximum Ratings** T<sub>a</sub>=25°C unless otherwise noted

Symbol	Parameter	Ratings	Units
$V_{CBO}$	Collector-Base Voltage	160	V
V <sub>CEO</sub>	Collector-Emitter Voltage	160	V
V <sub>EBO</sub>	Emitter-Base Voltage	6	V
I <sub>C</sub>	Collector Current	1	А
I <sub>B</sub>	Base Current	0.5	А
P <sub>C</sub>	Collector Power Dissipation	900	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-55 ~ 150	°C

### Electrical Characteristics T<sub>a</sub>=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
I <sub>CBO</sub>	Collector Cut-off Current	V <sub>CB</sub> =150V, I <sub>E</sub> =0			1	μΑ
I <sub>EBO</sub>	Emitter Cut-off Current	$V_{EB}$ =6V, $I_C$ =0			1	μΑ
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> =10mA, I <sub>B</sub> =0	160			V
h <sub>FE</sub>	DC Current Gain	V <sub>CE</sub> =5V, I <sub>C</sub> =200mA	60		320	
V <sub>CE</sub> (sat)	Collector-Emitter Saturation Voltage	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA			1.5	V
V <sub>BE</sub> (on)	Base-Emitter On Voltage	$V_{CE}$ =5V, $I_{C}$ =5mA	0.45		0.75	V
f <sub>T</sub>	Current Gain Bandwidth Product	V <sub>CE</sub> =5V, I <sub>C</sub> =200mA	20	100		MHz
C <sub>ob</sub>	Output Capacitance	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz			20	pF

### $h_{\text{FE}}$ Classification

Classification	R	0	Y	
h <sub>FE</sub>	60 ~ 120	100 ~ 200	160 ~ 320	

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# **Typical Characteristics**

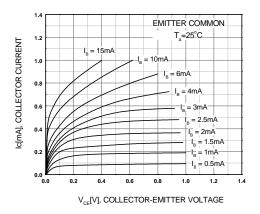
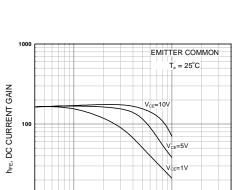


Figure 1. Static Characteristic



Ic[mA], COLLECTOR CURRENT

Figure 3. DC current Gain

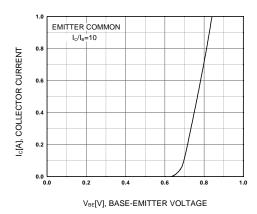


Figure 5. Base-Emitter On Voltage

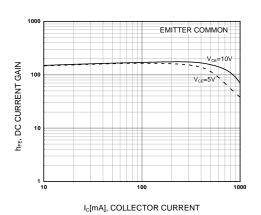


Figure 2. DC current Gain

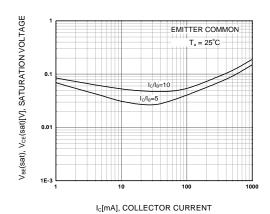


Figure 4. Collector-Emitter Saturation Voltage

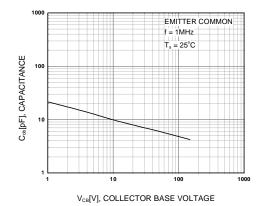


Figure 6. Collector Output Capacitance

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# Typical Characteristics (Continued)

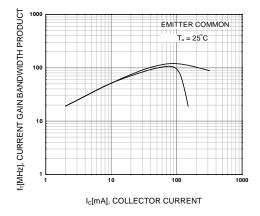


Figure 7. Current Gain Bandwidth Product

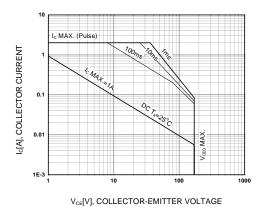
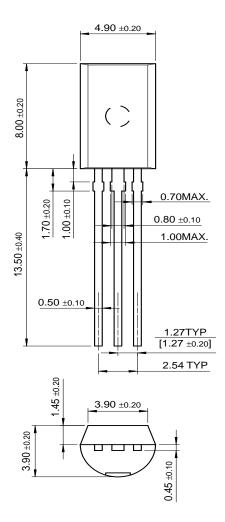


Figure 8. Safe Operating Area



# **Package Dimensions**

# TO-92L





Dimensions in Millimeters

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EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
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EnSigna™	$I^2C^{TM}$	$OCX^{TM}$	RapidConfigure™	UHC™
Across the board.	Around the world.™	OCXPro™	RapidConnect™	UltraFET <sup>®</sup>
The Power Franchise™		OPTOLOGIC <sup>®</sup>	SILENT SWITCHER®	$VCX^{TM}$
Programmable Ad	ctive Droop™	OPTOPLANAR™	SMART START™	

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