FAIRCHILD SEMICONDUCTOR®

KSC2383

Color TV Audio Output & Color TV Vertical Deflection Output

TO-92L

1. Emitter 2. Collector 3. Base

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°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	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

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

h_{FE} Classification

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

Typical Characteristics

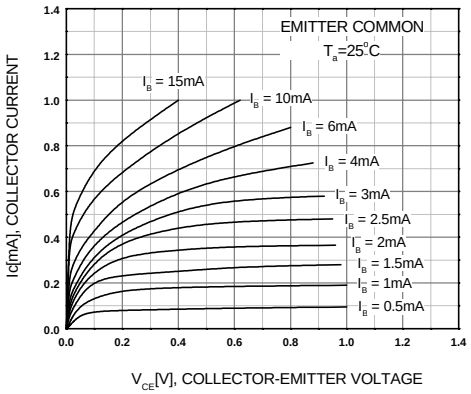


Figure 1. Static Characteristic

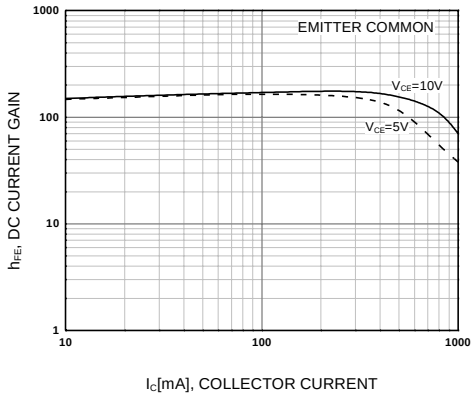


Figure 2. DC current Gain

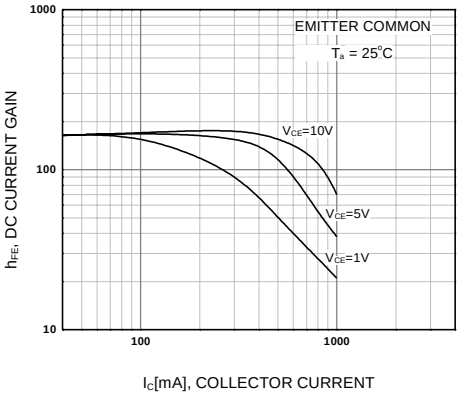


Figure 3. DC current Gain

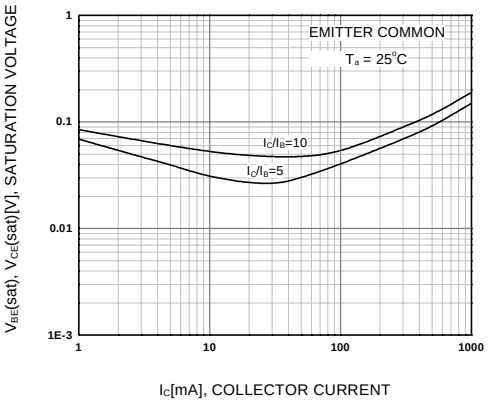


Figure 4. Collector-Emitter Saturation Voltage

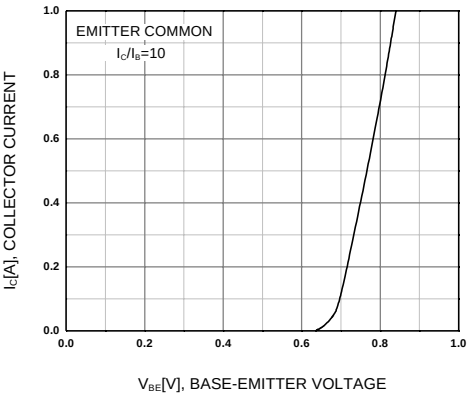


Figure 5. Base-Emitter On Voltage

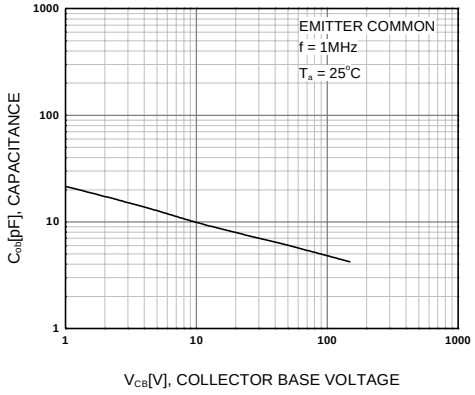


Figure 6. Collector Output Capacitance

Typical Characteristics (Continued)

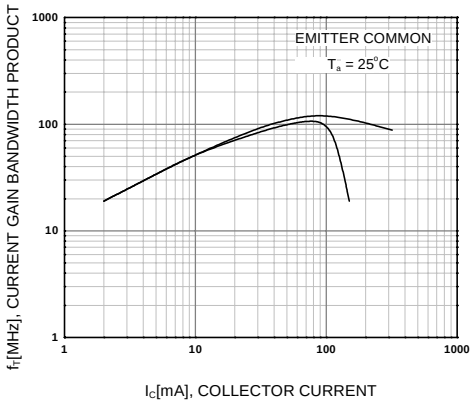


Figure 7. Current Gain Bandwidth Product

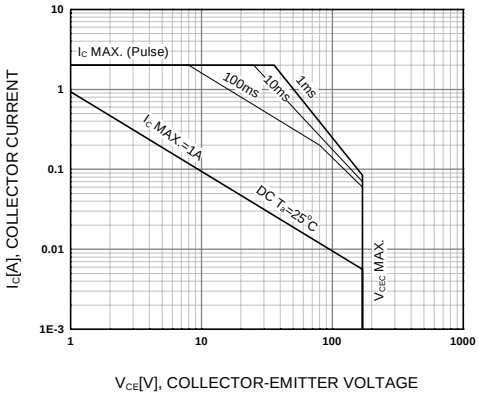
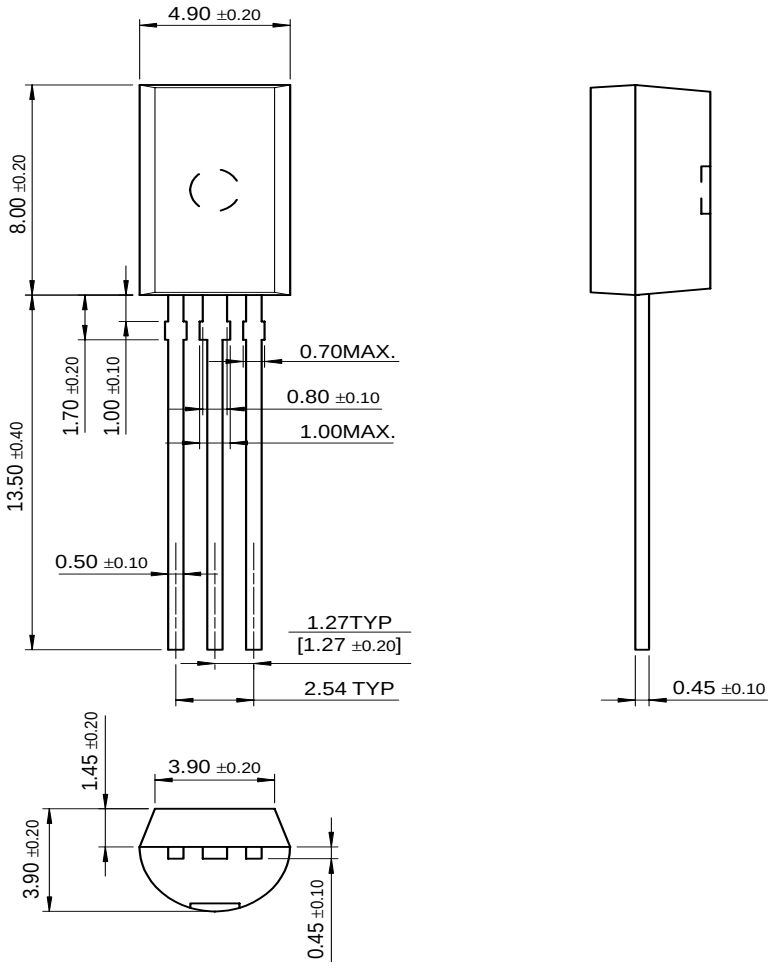


Figure 8. Safe Operating Area

Package Dimensions

TO-92L



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
E^2CMOS™	HiSeC™	MSXPro™	Quiet Series™	TruTranslation™
EnSigna™	I^2C™	OCX™	RapidConfigure™	UHC™
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Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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