

KSA1013

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Color TV Audio Output
Color TV Vertical Deflection Output



PNP 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	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -6\text{mA}, I_C = 0$			-1	μA
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	$V_{CE} = -5\text{V}, I_C = -200\text{mA}$	15	50		MHz
C_{ob}	Output Capacitance	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$			35	pF

h_{FE} Classification

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

Typical Characteristics

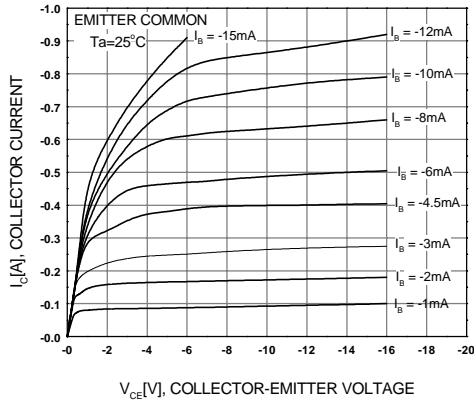


Figure 1. Static Characteristic

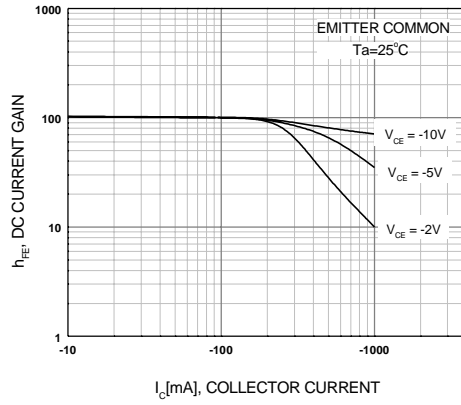


Figure 2. DC current Gain

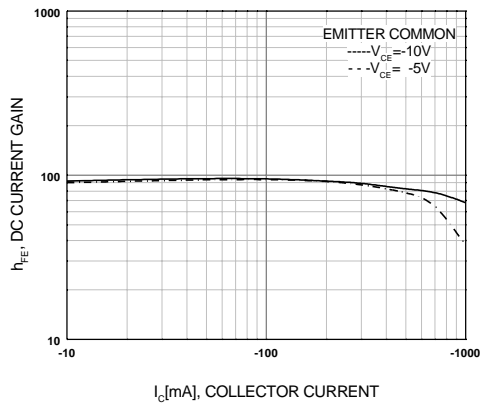


Figure 3. DC current Gain

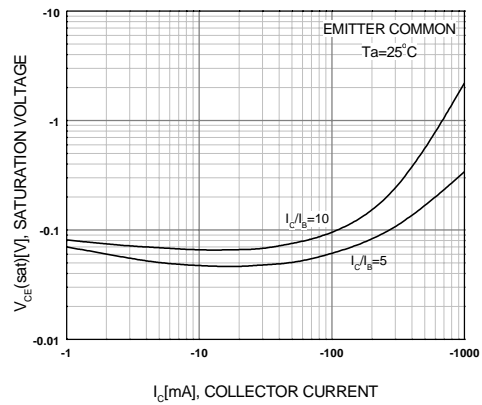


Figure 4. Collector-Emitter Saturation Voltage

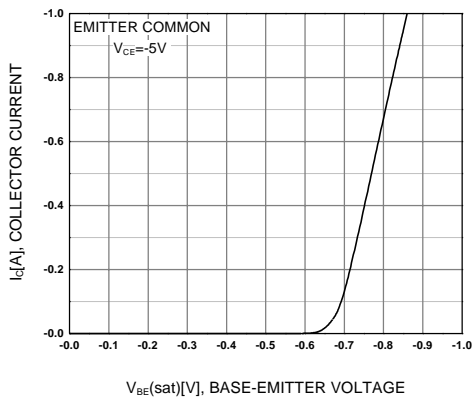


Figure 5. Base-Emitter On Voltage

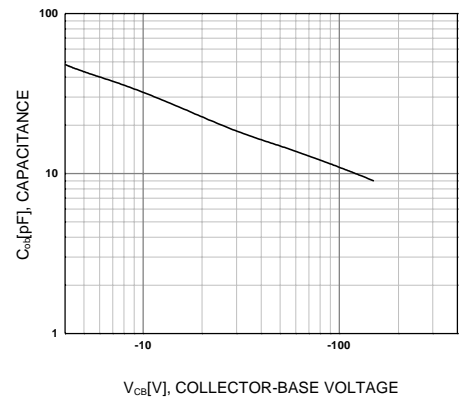


Figure 6. Collector Output Capacitance

Typical Characteristics (Continued)

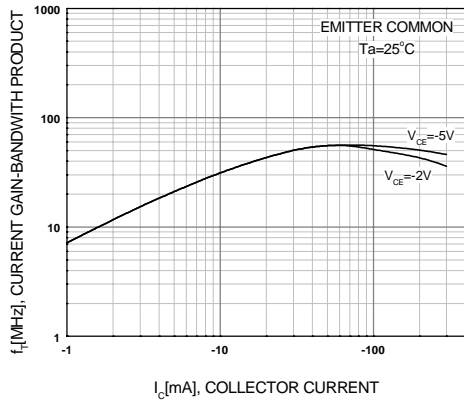


Figure 7. Current Gain Bandwidth Product

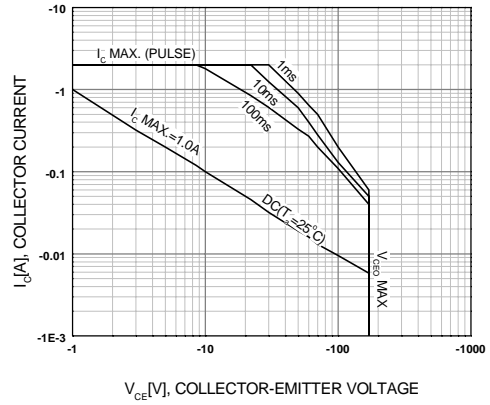
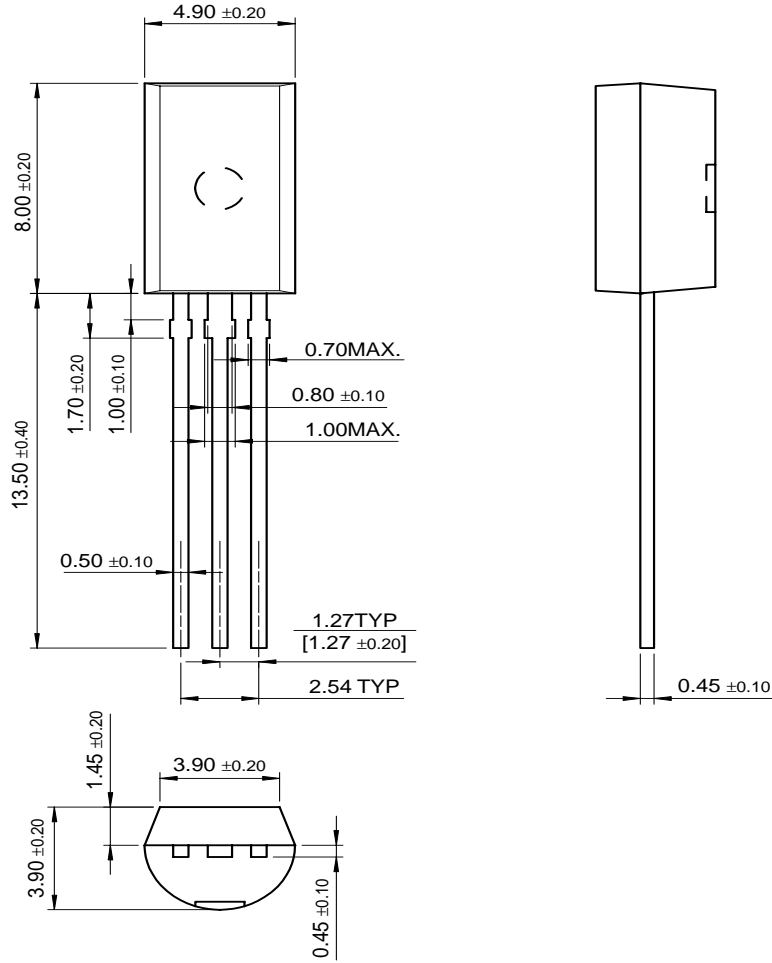


Figure 8. Safe Operating Area

Package Dimensions

KSA1013

TO-92L



Dimensions in Millimeters

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