



**THE DATASHEET OF
KSA13040TU**

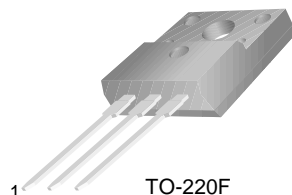


KSA1304

KSA1304

Vertical Output Applications Power Amplifier Applications

- Complement to KSC3296



TO-220F
1.Base 2.Collector 3.Emitter

PNP Epitaxial Silicon Transistor

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

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	- 150	V
V_{CEO}	Collector-Emitter Voltage	- 150	V
V_{EBO}	Emitter-Base Voltage	- 5	V
I_C	Collector Current	- 1.5	A
I_B	Base Current	- 0.5	A
P_C	Collector Dissipation ($T_C=25^\circ\text{C}$)	20	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ\text{C}$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
I_{CBO}	Collector Cut-off Current	$V_{CB} = -120\text{V}, I_E = 0$			- 10	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = -5\text{V}, I_C = 0$			- 10	μA
h_{FE}	DC Current Gain	$V_{CE} = -10\text{V}, I_C = -500\text{mA}$	40	75	140	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -500\text{mA}, I_B = -50\text{mA}$			- 1.5	V
$V_{BE(on)}$	Base-Emitter ON Voltage	$V_{CE} = -10\text{V}, I_C = -500\text{mA}$	- 0.65	- 0.75	- 0.85	V
f_T	Current Gain Bandwidth Product	$V_{CE} = -10\text{V}, I_C = -500\text{mA}$		4		MHz
C_{ob}	Output Capacitance	$V_{CB} = -10\text{V}, f = 1\text{MHz}$		55		pF

Typical Characteristics

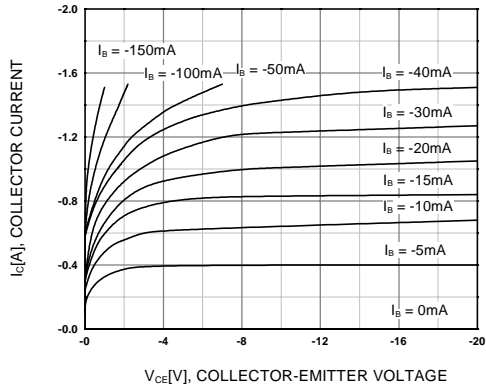


Figure 1. Static Characteristic

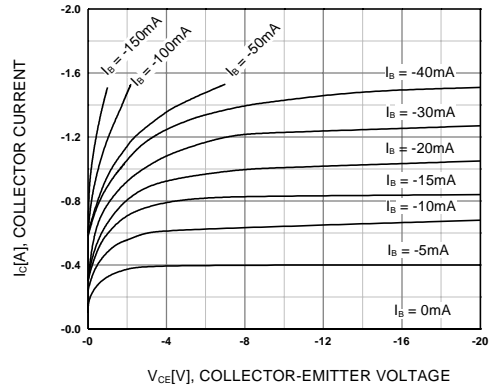


Figure 2. Static Characteristic

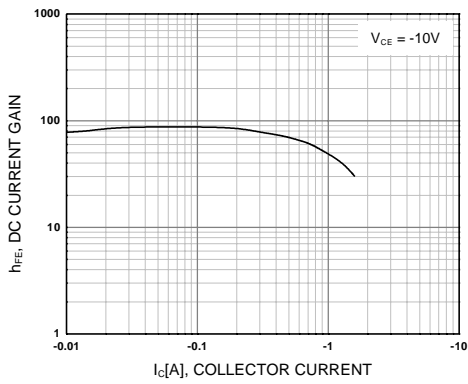


Figure 3. DC current Gain

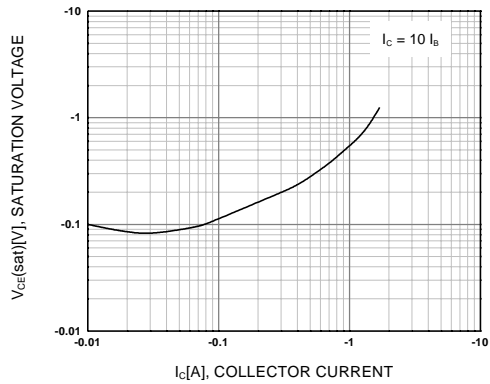


Figure 4. Collector-Emitter Saturation Voltage

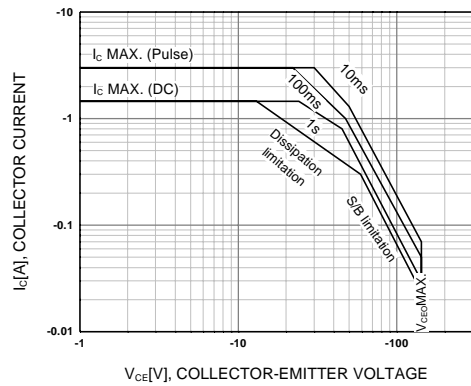


Figure 5. Safe Operating Area

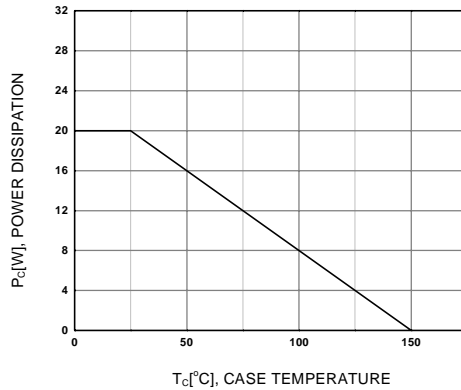
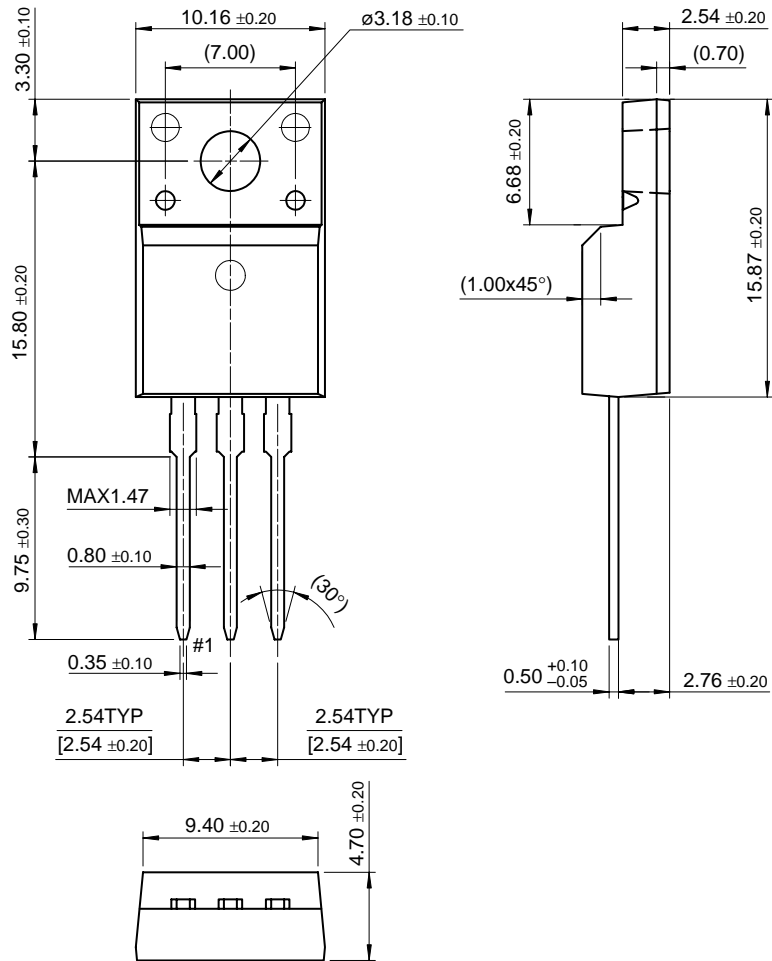


Figure 6. Power Derating

Package Dimensions

KSA1304

TO-220F



Dimensions in Millimeters

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