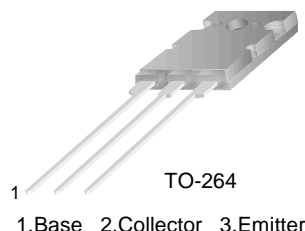


KSA1943

KSA1943

Audio Power Amplifier

- High Current Capability $I_C = -13A$
- High Power Dissipation
- Wide S.O.A
- Complement to KSC5200



PNP Epitaxial Silicon Transistor

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

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	-230	V
V_{CEO}	Collector-Emitter Voltage	-230	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-13	A
I_B	Base Current	-1.5	A
P_C	Collector Dissipation ($T_C=25^\circ C$)	130	W
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	- 50 ~ 150	$^\circ C$

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

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C=-5mA, I_E=0$	-230			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	$I_C=-10mA, R_{BE}=\infty$	-230			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E=-5mA, I_C=0$	-5			V
I_{CBO}	Collector Cut-off Current	$V_{CB}=-230V, I_E=0$			-5.0	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB}=-5V, I_C=0$			-5.0	μA
h_{FE1}	* DC Current Gain	$V_{CE}=-5V, I_C=-1A$	55		160	
h_{FE2}	DC Current Gain	$V_{CE}=-5V, I_C=-7A$	35	60		
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=-8A, I_B=-0.8A$		-0.4	-3.0	V
$V_{BE(on)}$	Base-Emitter ON Voltage	$V_{CE}=-5V, I_C=-7A$		-1.0	-1.5	V
f_T	Current Gain Bandwidth Product	$V_{CE}=-5V, I_C=-1A$		30		MHz
C_{ob}	Output Capacitance	$V_{CB}=-10V, f=1MHz$		360		pF

* Pulse Test : PW=20us

* h_{FE} Classification

Classification	R	O
h_{FE1}	55 ~ 110	80 ~ 160

Typical Characteristics

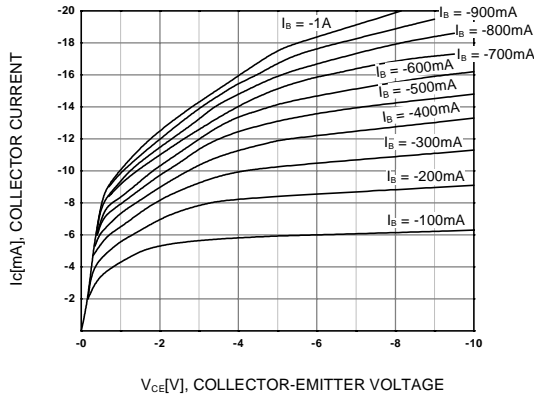


Figure 1. Static Characteristic

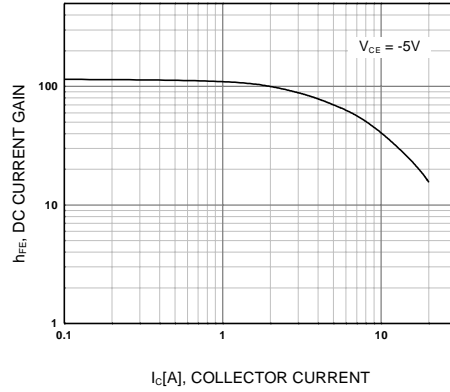


Figure 2. DC current Gain

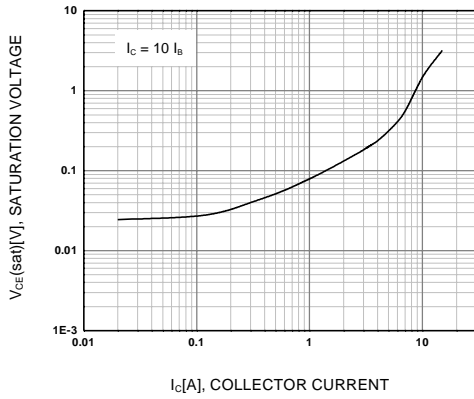


Figure 3. Collector-Emitter Saturation Voltage

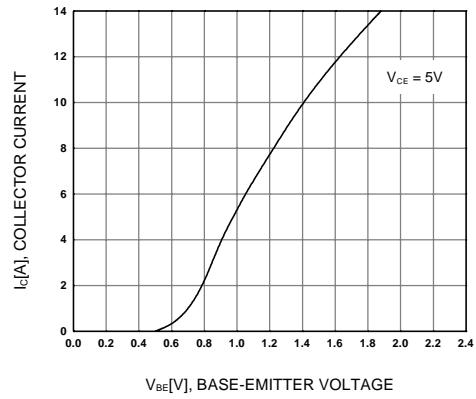


Figure 4. Collector-Emitter Saturation Voltage

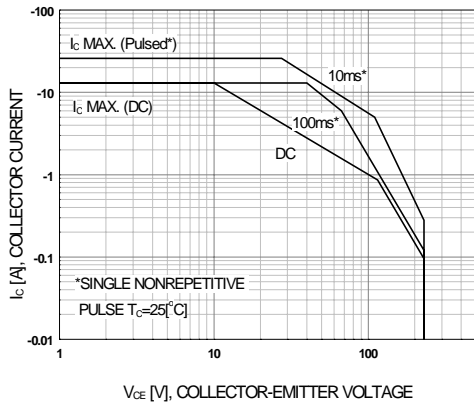


Figure 5. Safe Operating Area

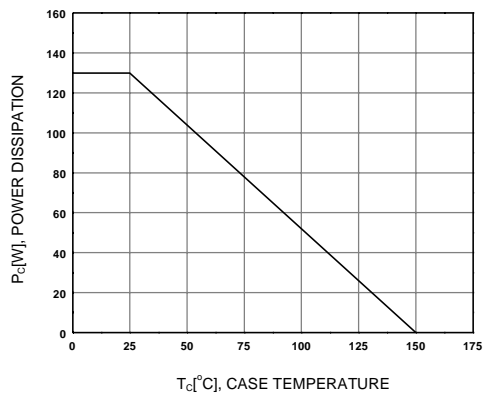
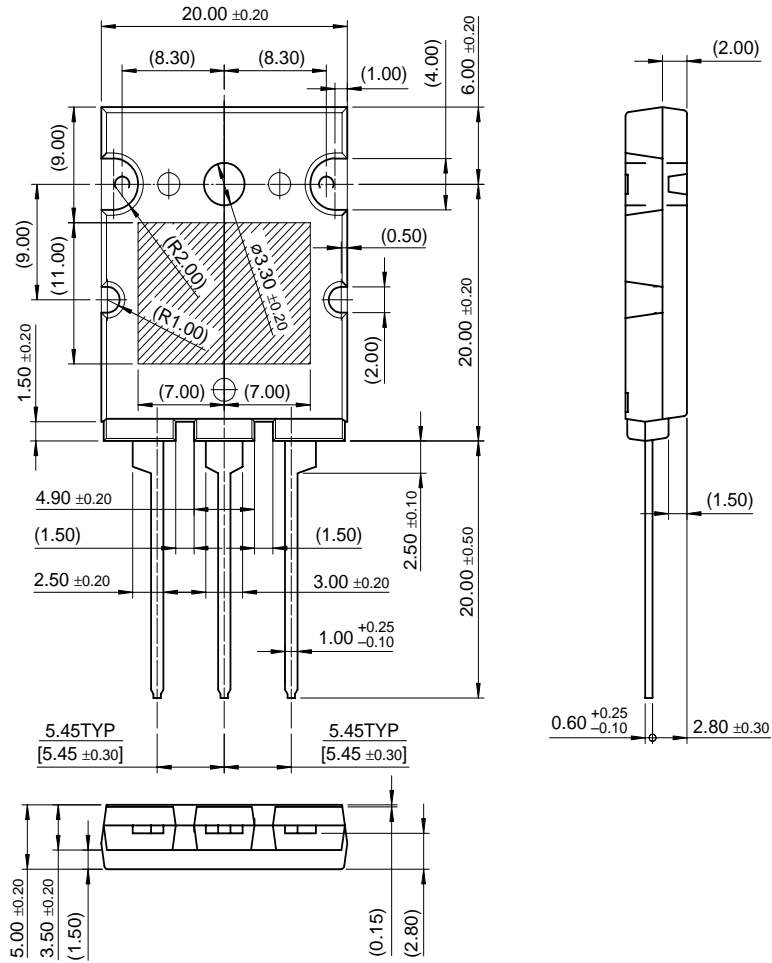


Figure 6. Power Derating

Package Dimensions

KSA1943

TO-264



Dimensions in Millimeters

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E ² CMOS TM	LittleFET TM	QS TM	TruTranslation TM	
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