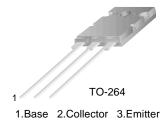


KSC5200

Audio Power Amplifier

- High Current Capability : I_C=13A
- High Power Dissipation
- Wide S.O.A
- Complement to KSA1943



NPN Epitaxial Silicon Transistor

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

Symbol	Parameter	Value	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(DC)	13	А	
I _B	Base Current	1.5	А	
P _C	Collector Dissipation (T _C =25°C)	130	W	
T _J	Junction Temperature	150	°C	
T _{STG}	Storage Temperature	- 50 ~ 150	°C	

Electrical Characteristics T_C=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Тур.	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} =∞	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	uA
I _{EBO}	Emitter Cut-off Current	V_{EB} =5V, I_C =0			5.0	uA
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		200		pF
* Pulse Test : PW=20us						

h_{FE} Classification

Classification	R	0
h _{FE1}	55 ~ 110	80 ~ 160

Typical Characteristics

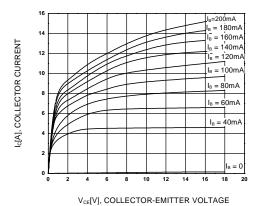


Figure 1. Static Characteristic

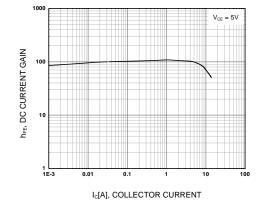


Figure 2. DC current Gain

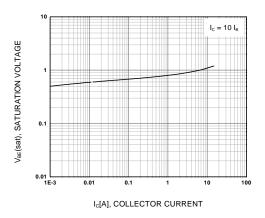


Figure 3. Base-Emitter Saturation Voltage

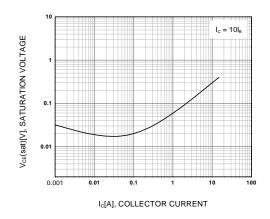


Figure 4. Collector-Emitter Saturation Voltage

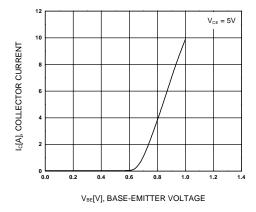
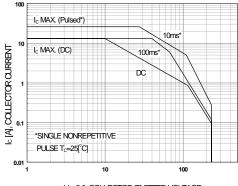


Figure 5. Base-Emitter On Voltage



 $V_{CE}\left[V\right]\!,COLLECTOR\text{-}EMITTER\,VOLTAGE$

Figure 6. Safe Operating Area

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Typical Characteristics

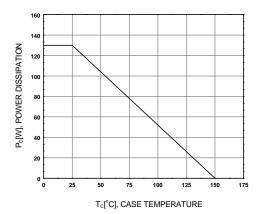
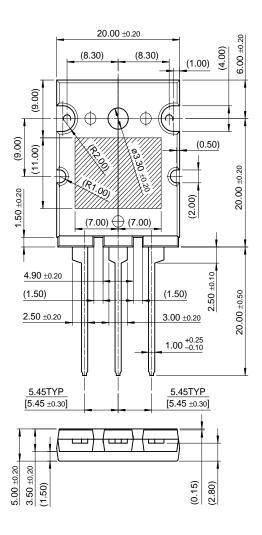
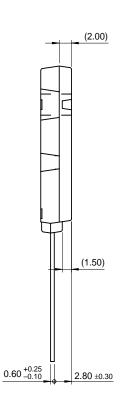


Figure 7. Power Derating

Package Demensions

TO-264





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Rev. H4

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