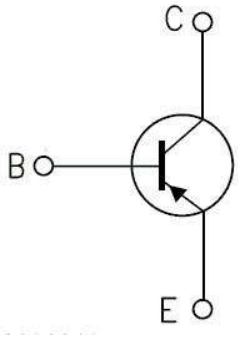
Description

SAP0521 is an audio power transistor, silicon PNP epitaxial type. With superior gain linearity and safe operating area performance, the transistors (SAN0521 together with SAP0521) are ideal for high fidelity audio amplifier output stages and other linear applications.

- Note: Using continuously under heavy loads (e.g. the application of high temperature/ current/ voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (e.g. operating temperature/ current/ voltage, etc.) are within the absolute maximum ratings.

Features

- High Collector-Emitter Breakdown Voltage
- High Transistion Frequence
- Exceptional Safe Operating Area
- Excellent Gain Linearity
- Complementary to SAN0521



Applications

- Power Amplifier
- Driver Stage Amplifier

Halogen

RoHS

Device Information

Part Number	Marking Code	Package	Packing
SAP0521	SAP0521	TO-264	

Absolute Maximum Ratings(Tc=25℃)

Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-260	V
Collector-emitter voltage	V_{CEO}	-260	V
Emitter-base voltage	V_{EBO}	-5	V
Collector current	I_C	-15	A
Base current	I_B	-1.5	A
Collector power dissipation (Tc=25℃)	P_C	200	W
Junction temperature	T_j	150	℃
Storage temperature range	T_{STG}	-55~150	℃

Thermal Characteristics

Symbol	Paramter	Typ	Units
$R_{\theta JC}$	Junction-to-Case	0.35	℃/W

Electrical Characteristics (Tc=25℃)

Characteristics	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Cut-off Current	I_{CBO}	V_{CB}=-260V,I_E=0			-50	uA
Emitter-Base Cut-off Current	I_{EBO}	V_{EB}=-5V,I_C=0			-5.0	uA
Collector-Emitter Breakdown Voltage	V_{CEO}	I_C=-50mA	-260			V
DC current gain	h_{FE}	I_C=-1A; V_{CE}=-5V	75		150	
Collector-emitter saturation voltage	V_{CEsat}	I_C=-10A; I_B=-1A			-3	V
Base-emitter voltage	V_{BE}	V_{CE}=-5V;I_C=-8A			-1.5	V
Transition frequency	f_T	V_{CE}=-5V;I_C=-1A		30		MHz

Characteristics Curves

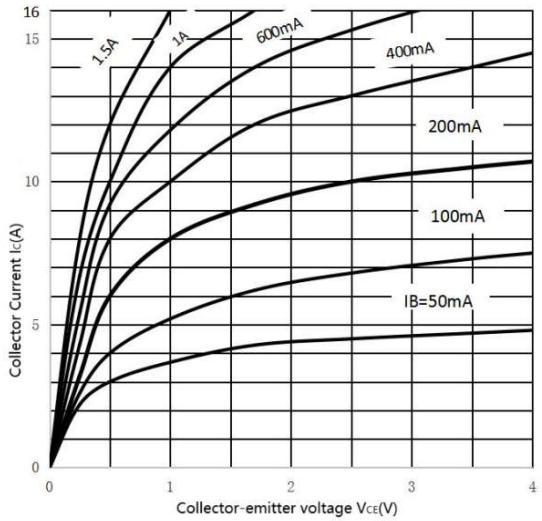


Figure 1: Power Derating

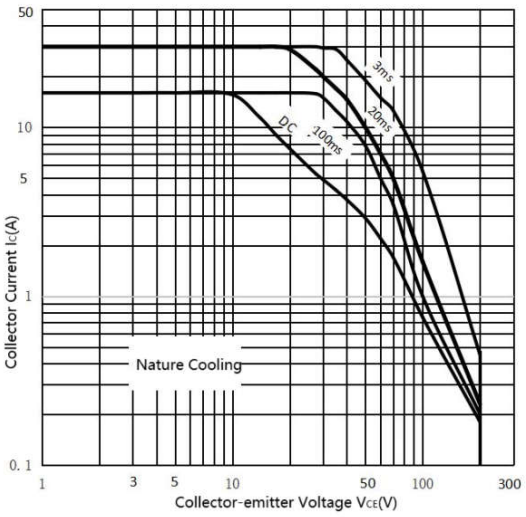


Figure 2: Safe Operating Area

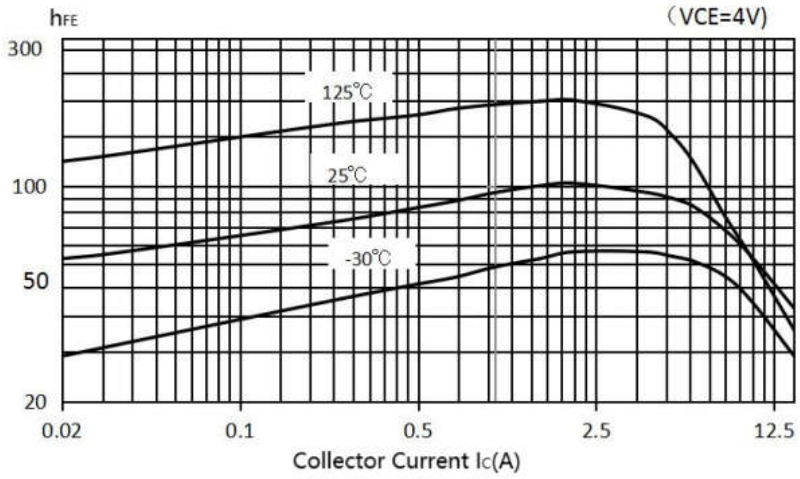
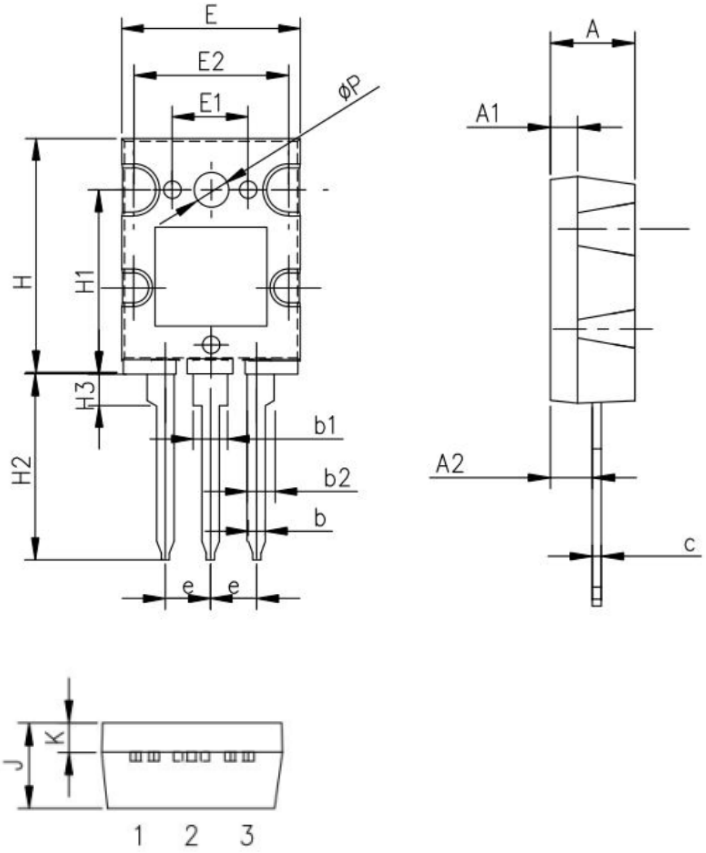


Figure 3: DC Current Gain

Package Information

TO-264



Symbol	mm		
	Min	Nom	Max
A	4.80	5.00	5.20
A1	1.80	2.00	2.20
A2	2.60	2.80	3.00
b	0.80	1.0	1.20
b1	3.00	3.20	3.40
b2	2.40	2.60	2.80
c	0.55	0.60	0.75
e	5.25	5.45	5.65
E	19.8	20.0	20.2
E1	8.80	9.00	9.20
E2	17.8	18.0	18.2
H	25.8	26.0	26.2
H1	19.8	20.0	20.2
H2	19.5	20.0	20.5
H3	2.0	2.5	3.0
G	5.8	6.0	6.2
ΦP	3.00	3.20	3.40
J	4.80	5.00	5.20
K	1.4	1.6	1.8

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