

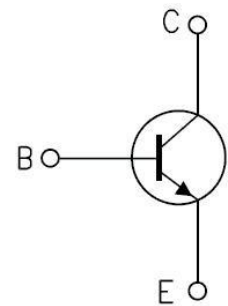
Description

SAN0525 is an audio power transistor, silicon NPN epitaxial type. With superior gain linearity and safe operating area performance, the transistors (SAN0525 together with SAP0525) are ideal for high fidelity audio amplifier output stages and other linear applications.

- Note: Using 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 and Applications

- Large collector current: $I_c=16A$
- High collector-emitter voltage: $V_{CEO} \geq 250V$
- Wide security workspace: $3.2A/80V@1\text{ Second}$
- Excellent frequency characteristic: $f_T > 20MHz$
- Suitable for final output of high fidelity audio amplifiers above 100W



Applications

- Power Amplifier
- Driver Stage Amplifier



Device Information

Part Number	Marking Code	Package	Packing
SAN0525	SAN0525	TO-264	



Absolute Maximum Ratings($T_c=25^{\circ}\text{C}$)

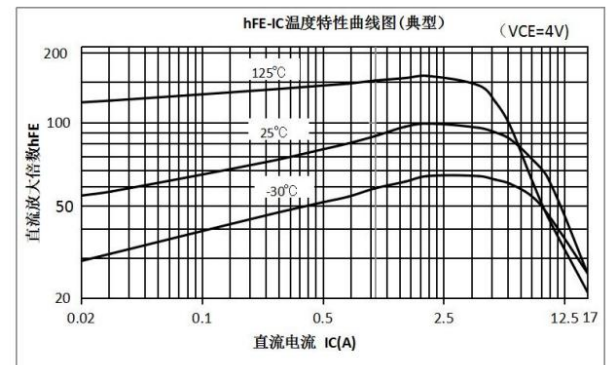
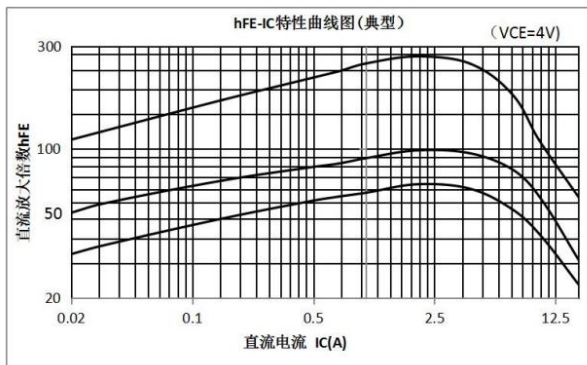
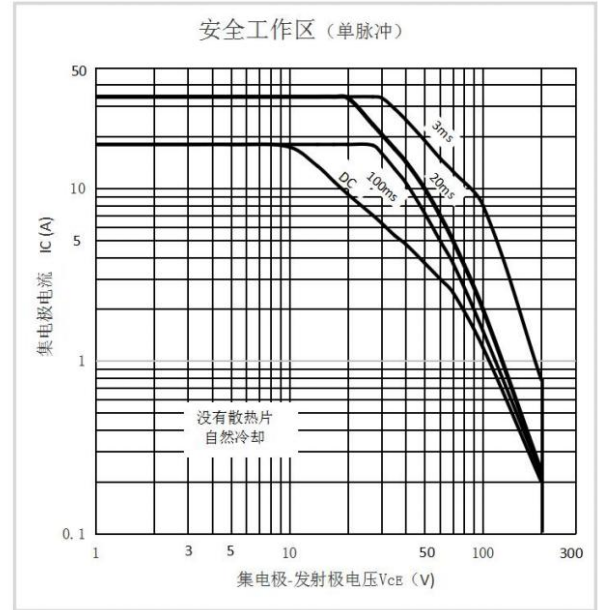
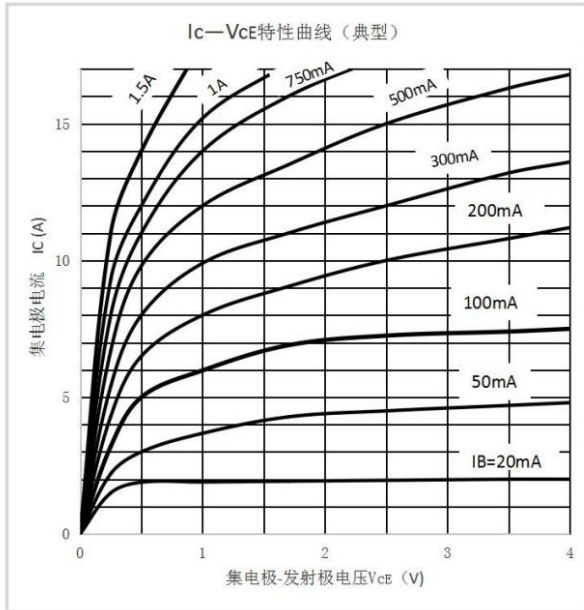
Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	330	V
Collector-emitter voltage	V_{CEO}	250	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	16	A
Base current	I_B	5	A
Collector power dissipation($T_c=25^{\circ}\text{C}$)	P_C	250	W
Junction temperature	T_j	10	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55~150	$^{\circ}\text{C}$

Electrical Characteristics ($T_c=25^{\circ}\text{C}$)

Characteristics	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Cut-off Current	I_{CBO}	$V_{CB}=250\text{V}, I_E=0$			5.0	μA
Emitter-Base Cut-off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			5.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50\text{mA}, I_B=0$	250	300		V
DC current gain	h_{FE}	$I_C=1\text{A}; V_{CE}=5\text{V}$	75		150	
	$h_{FE(2)}$	$V_{CE}=5\text{V}; I_C=8\text{A};$	25		100	
Collector-emitter saturation voltage	V_{CEsat}	$I_C=8\text{A}; I_B=0.8\text{A}$			1.4	V
Base-emitter voltage	V_{BE}	$V_{CE}=5\text{V}; I_C=8\text{A}$			2.2	V
Transition frequency	f_T	$V_{CE}=5\text{V}; I_C=1\text{A}$	4			MHz

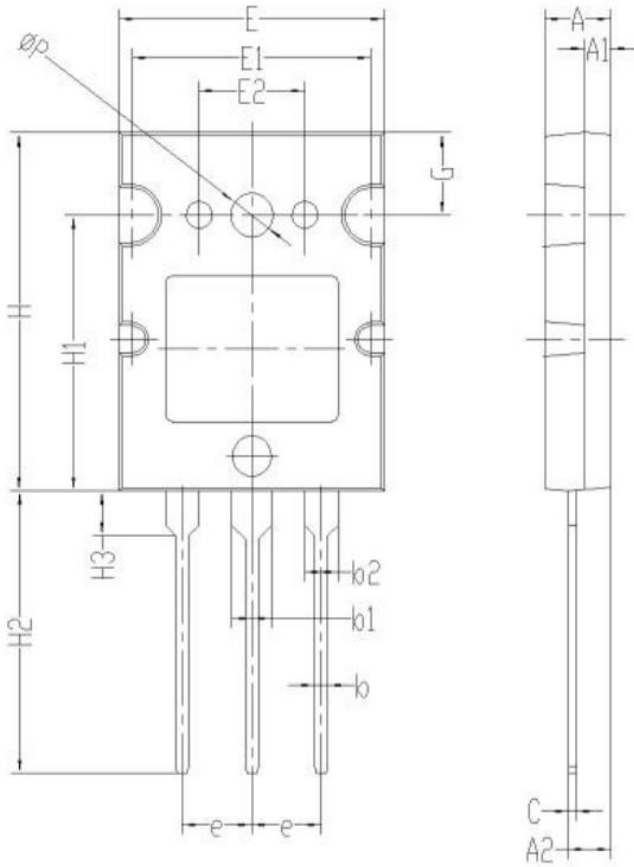
Symbol	Paramter	Typ	Units
$R_{\theta JC}$	Junction-to-Case	0.35	$^{\circ}\text{C/W}$

Characteristics Curves



Package Information

TO-264



Symbol	Dimensions(millimeters)	
	Min.	Max.
A	4.80	5.20
A1	1.80	2.20
A2	3.00	3.40
b	0.80	1.20
b1	2.80	3.20
b2	2.30	2.70
c	0.40	0.80
e	5.25	5.65
E	19.8	20.2
E1	17.8	18.2
E2	7.8	8.2
H	25.8	26.2
H1	19.8	20.2
H2	20.0	21.0
H3	3.05	3.45
G	5.80	6.20
ΦP	3.10	3.50
J	4.80	5.20
K	1.80	2.20



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