Silicon NPN Power Transistors 2SC2921

DESCRIPTION

- With MT-200 package
- Complement to type 2SA1215

APPLICATIONS

- Audio and general purpose

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

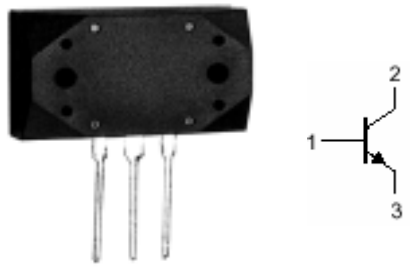

Fig.1 simplified outline (MT-200) and symbol

Absolute maximum ratings(Ta=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	160	V
V_{CEO}	Collector-emitter voltage	Open base	160	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		15	A
I_B	Base current		4	A
P_C	Collector power dissipation	T_C=25℃	150	W
T_j	Junction temperature		150	℃
T_{stg}	Storage temperature		-55~150	℃

CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=25mA ; I_B=0	160			V
V_{CEsat}	Collector-emitter saturation voltage	I_C=5A ;I_B=0.5A			2.0	V
I_{CBO}	Collector cut-off current	V_{CB}=160V; I_E=0			100	μA
I_{EBO}	Emitter cut-off current	V_{EB}=5V; I_C=0			100	μA
h_{FE}	DC current gain	I_C=5A ; V_{CE}=4V	50			
C_{ob}	Output capacitance	I_E=0 ; V_{CB}=10V;f=1MHz		200		pF
f_T	Transition frequency	I_E=-2A ; V_{CE}=12V		60		MHz
Switching times						
t_{on}	Turn-on time	I_C=5A;R_L=12Ω I_{B1}=-I_{B2}=0.5A V_{CC}=60V		0.20		μs
t_s	Storage time			1.50		μs
t_f	Fall time			0.35		μs

◆ **h_{FE} classifications**

O	P	Y
50-100	70-140	90-180

PACKAGE OUTLINE

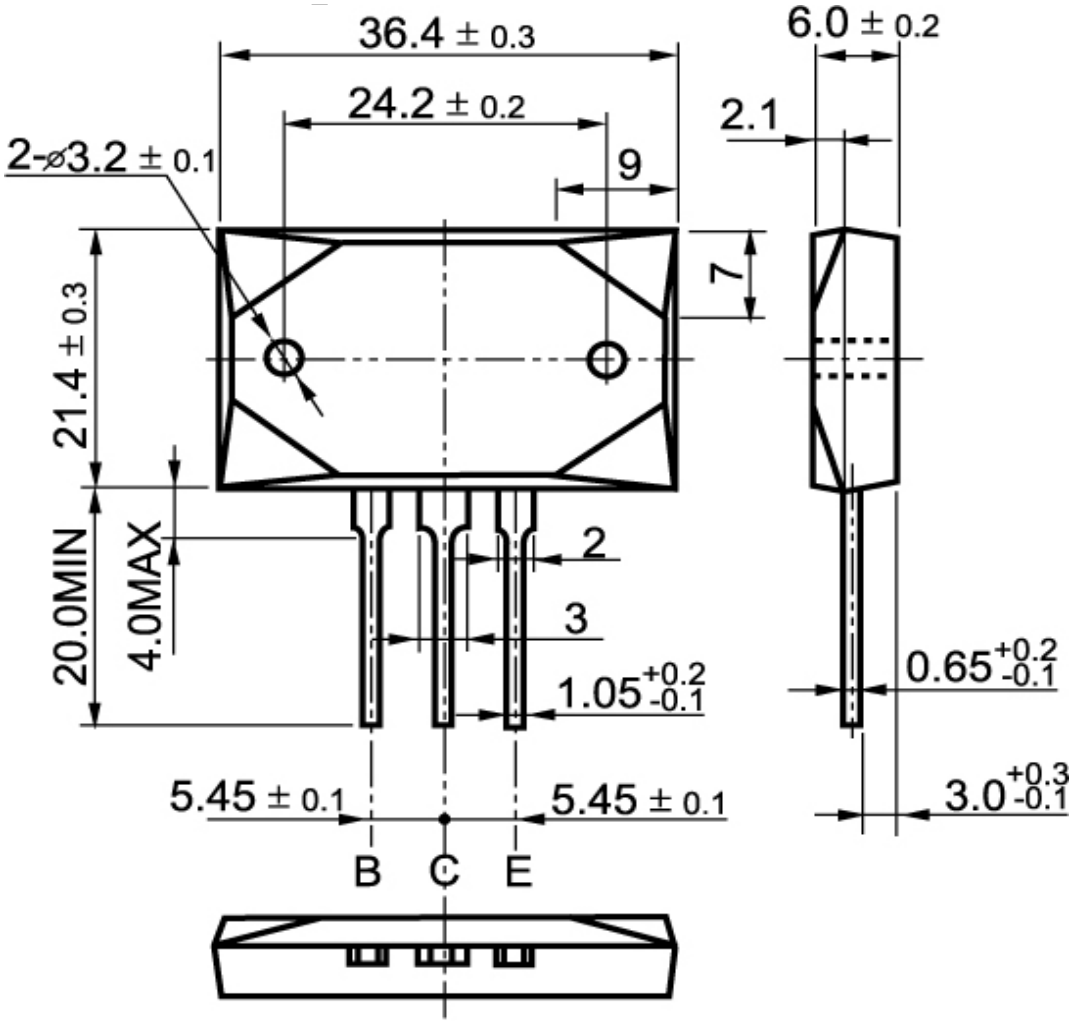

Fig.2 outline dimensions

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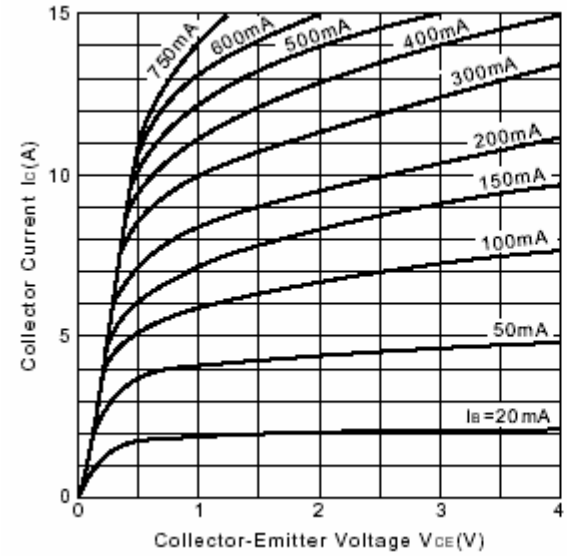

Fig.3 Static Characteristic

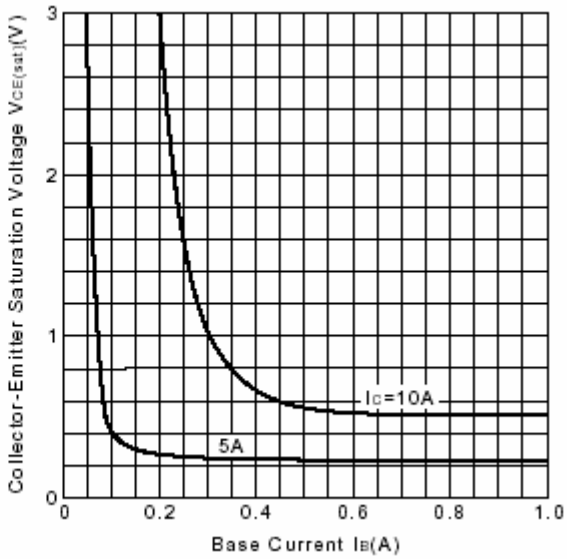

Fig.4 $V_{CE}(sat)-I_B$

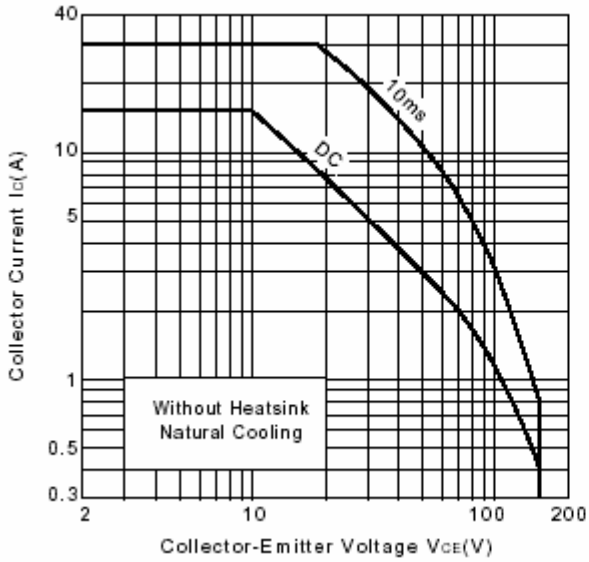

Fig.5 Safe Operating Area

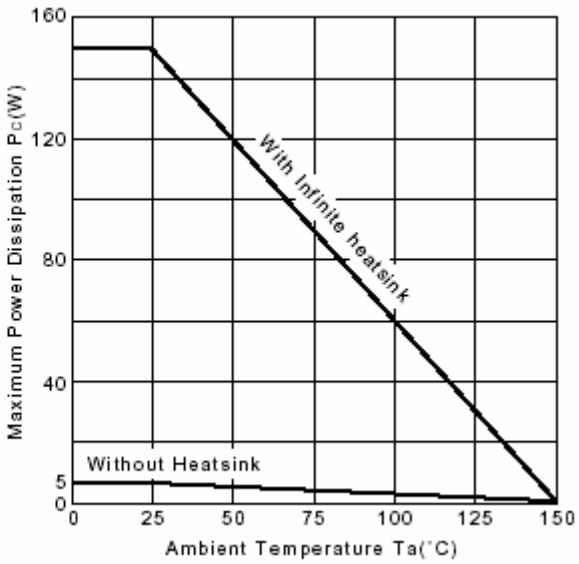

Fig.6 Power Derating

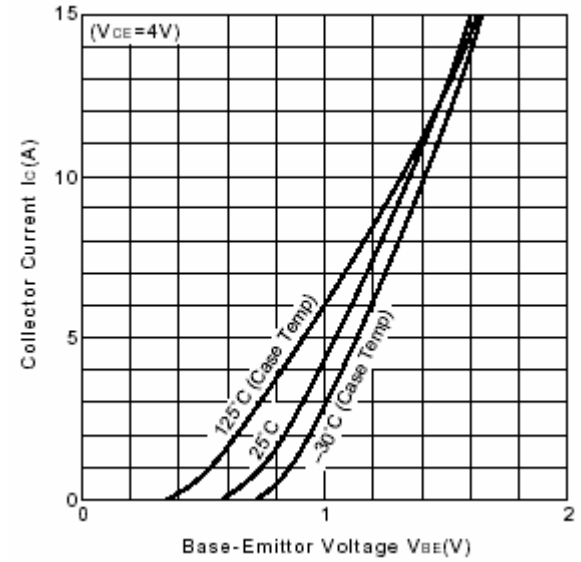

Fig.7 I_C-V_{BE}

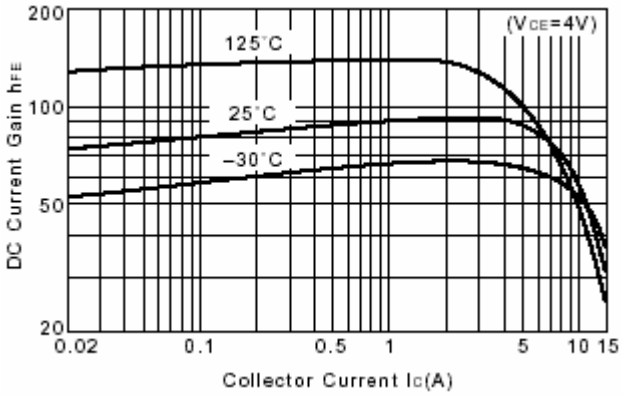

Fig.8 DC current Gain