Silicon PNP Power Transistors 2SA1006 2SA1006A 2SA1006B

DESCRIPTION

- With TO-220 package
- Complement to type 2SC2336,
  2SC2336A,2SC2336B

APPLICATIONS

- Audio frequency power amplifier
- High frequency power amplifier

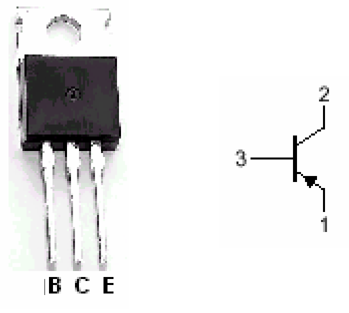

Fig.1 simplified outline (TO-220) and symbol

PINNING

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

Absolute maximum ratings(Ta=25□)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	2SA1006	Open emitter	-180	V
		2SA1006A		-200	
		2SA1006B		-250	
V_{CEO}	Collector-emitter voltage	2SA1006	Open base	-180	V
		2SA1006A		-200	
		2SA1006B		-250	
V_{EBO}	Emitter-base voltage		Open collector	-5	V
I_C	Collector current			-1.5	A
I_{CM}	Collector current-Peak			-3.0	A
P_T	Total power dissipation		T_a=25□	1.5	W
			T_C=25□	25	
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_{CEsat}	Collector-emitter saturation voltage	I_C=-0.5A; I_B=-50mA			-1.0	V
V_{BEsat}	Base-emitter saturation voltage	I_C=-0.5A ;I_B=-50mA			-1.5	V
I_{CBO}	Collector cut-off current	V_{CB}=-150V ;I_E=0			-1	μA
I_{EBO}	Emitter cut-off current	V_{EB}=-3V; I_C=0			-1	μA
h_{FE-1}	DC current gain	I_C=-5mA ; V_{CE}=-5V	30			
h_{FE-2}	DC current gain	I_C=-150mA ; V_{CE}=-5V	60		320	
C_{ob}	Output capacitance	I_E=0 ; V_{CB}=-10V,f=1MHz		45		pF
f_T	Transition frequency	I_C=-100mA ; V_{CE}=10V		80		MHz

◆ h_{FE-2} Classifications

R	Q	P
60-120	100-200	160-320

PACKAGE OUTLINE

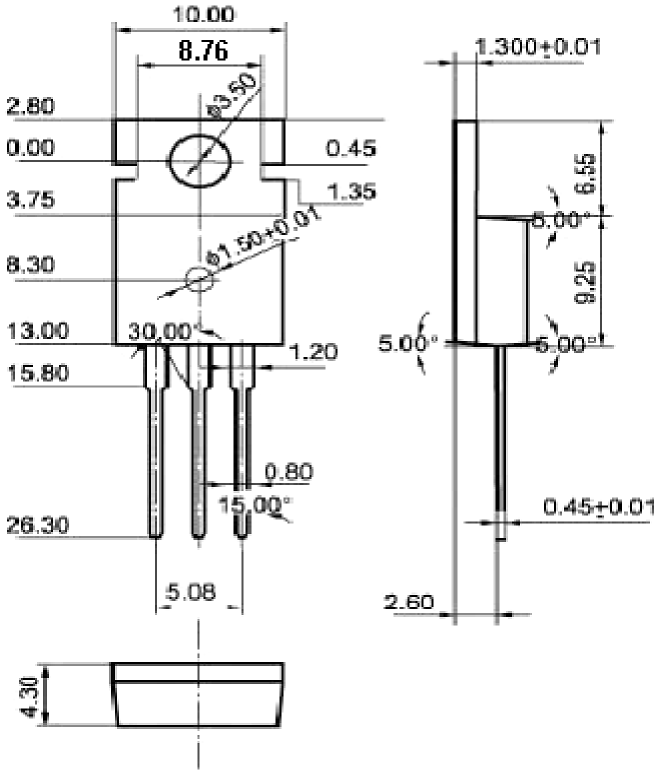

Fig.2 Outline dimensions(unindicated tolerance:±0.10 mm)

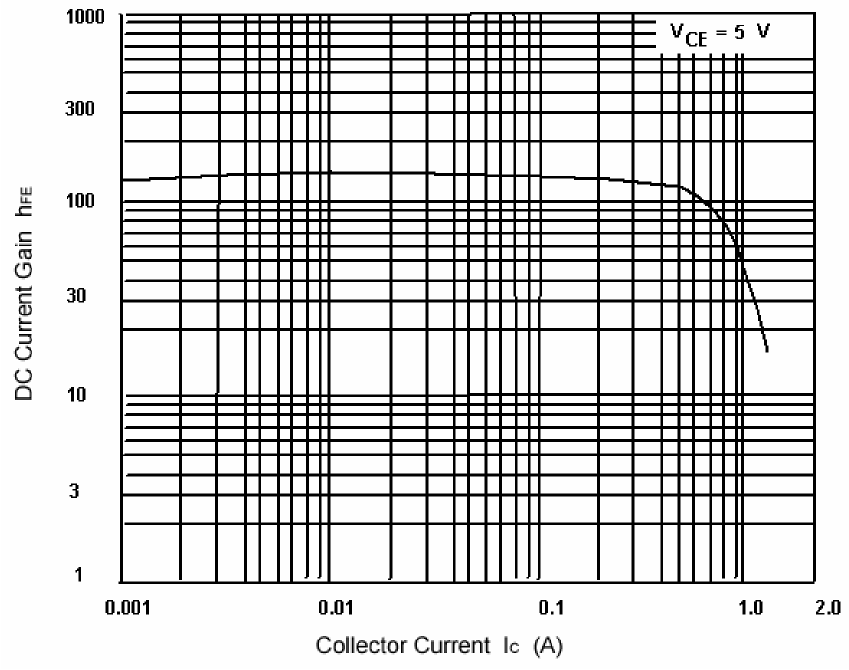

Fig.3 DC current Gain

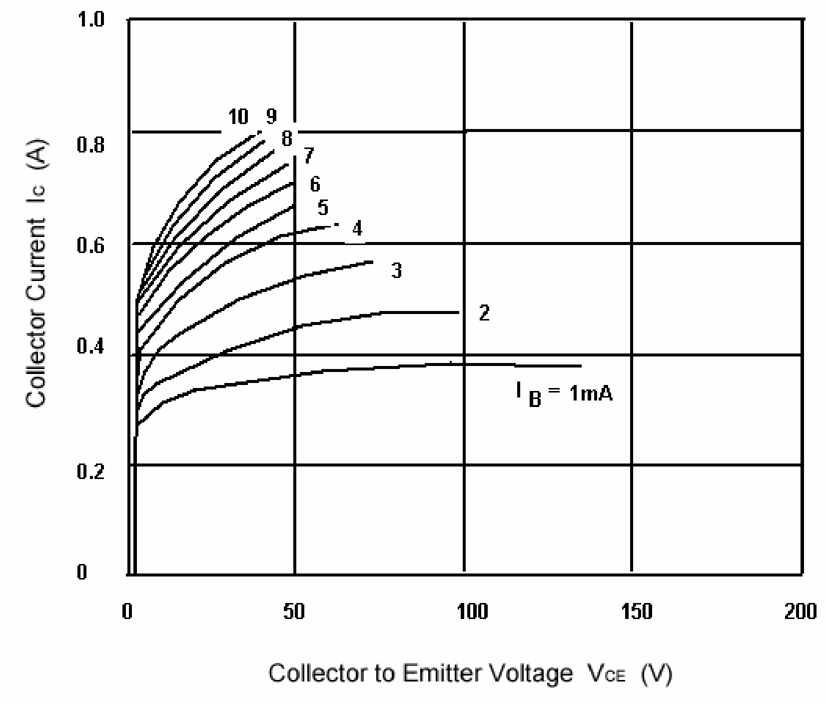

Fig.4 Static Characteristic

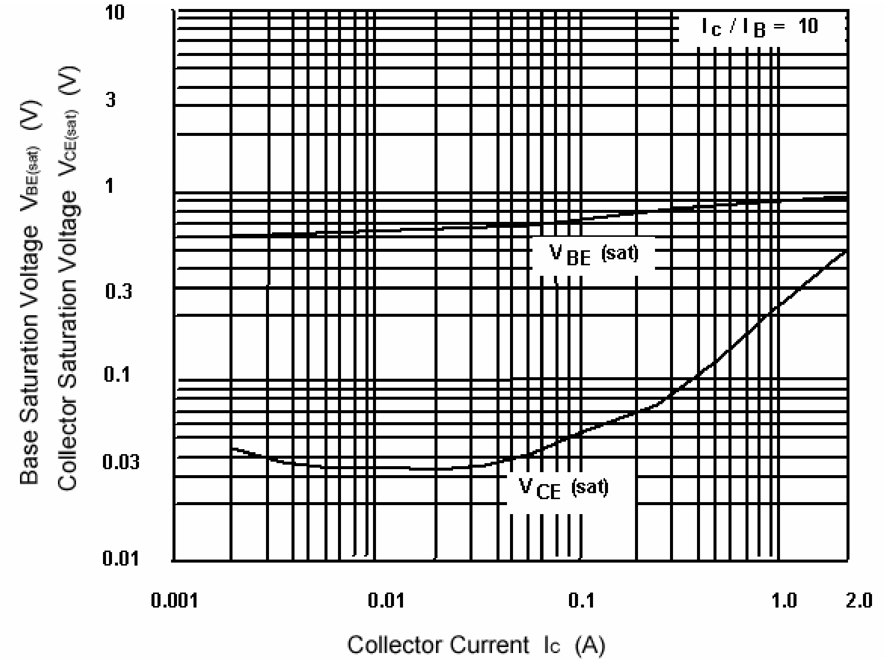

Fig.5 Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

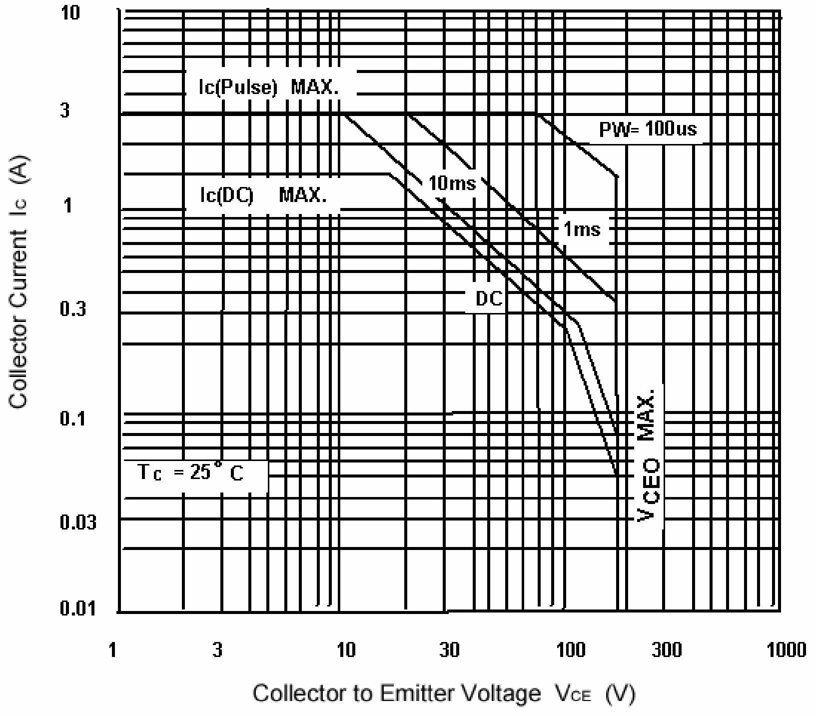

Fig.6 Safe Operating Area