Silicon PNP Power Transistors 2SB566 2SB566A

DESCRIPTION

- With TO-220C package
- Complement to type 2SD476/476A

APPLICATIONS

- For low frequency power amplifier power switching applications

PINNING

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

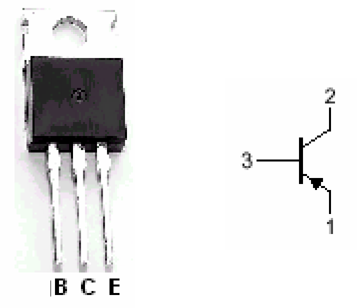

Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings(Tc=25℃)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage		Open emitter	-70	V
V_{CEO}	Collector-emitter voltage	2SB566	Open base	-50	V
		2SB566A		-60	
V_{EBO}	Emitter-base voltage		Open collector	-5	V
I_C	Collector current			-4	A
I_{CM}	Collector current-peak			-8	A
P_C	Collectorl power dissipation		T_C=25℃	40	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
$V_{(BR)CBO}$	Collector-base breakdown voltage		I_C=-10 µA ; I_E=0	-70			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	2SB566	I_C=-50mA; R_{BE}=∞	-50			V
		2SB566A		-60			
$V_{(BR)EBO}$	Emitter-base breakdown votage		I_E=-10 µA; I_C=0	-5			V
V_{CEsat}	Collector-emitter saturation voltage		I_C=-2 A;I_B=-0.2 A			-1.0	V
V_{BEsat}	Base-emitter saturation voltage		I_C=-2 A;I_B=-0.2 A			-1.2	V
I_{CBO}	Collector cut-off current		V_{CB}=-50V; I_E=0			-1	µA
h_{FE-1}	DC current gain		I_C=-0.1A ; V_{CE}=-4V	35			
h_{FE-2}	DC current gain		I_C=-1A ; V_{CE}=-4V	60		200	
f_T	Transition frequency		I_C=-0.5A ; V_{CE}=-4V		15		MHz

Switching times

t_{on}	Turn-on time	I_C=-0.5A ; V_{CC}=-10.5V I_{B1}=-I_{B2}=-0.05 A		0.3		µs
t_{off}	Turn-off time			3.0		µs
t_{stg}	Storage time			2.5		µs

◆ h_{FE-2} classifications

B	C
60-120	100-200

PACKAGE OUTLINE

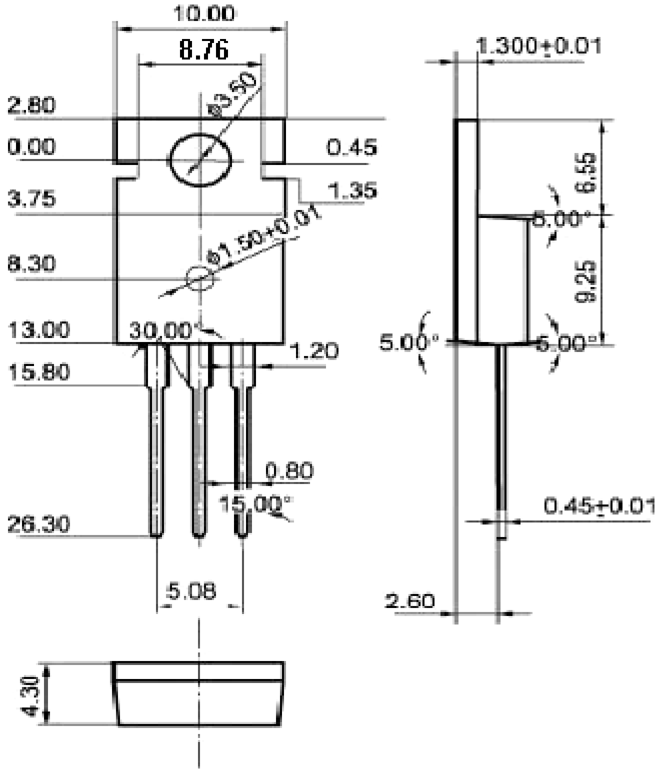

Fig.2 Outline dimensions (unindicated tolerance:±0.10 mm)

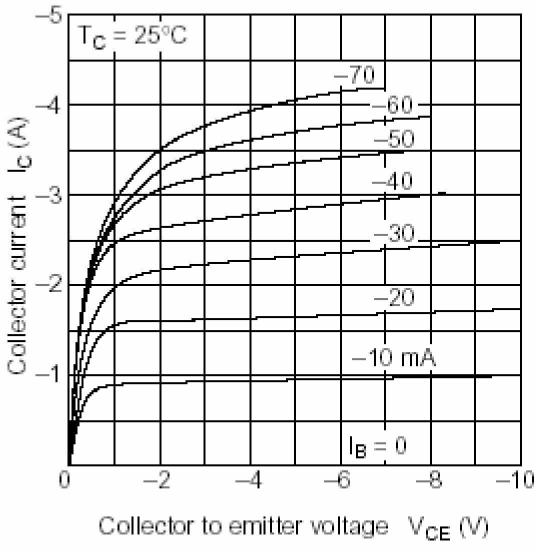

Fig.3 **Static Characteristic**

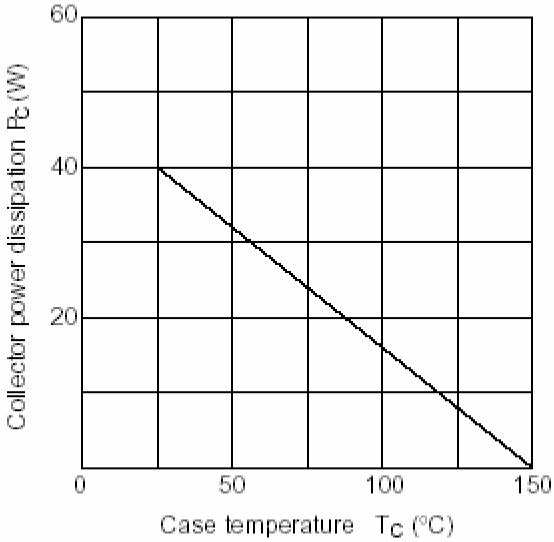

Fig.4 **Power Derating**

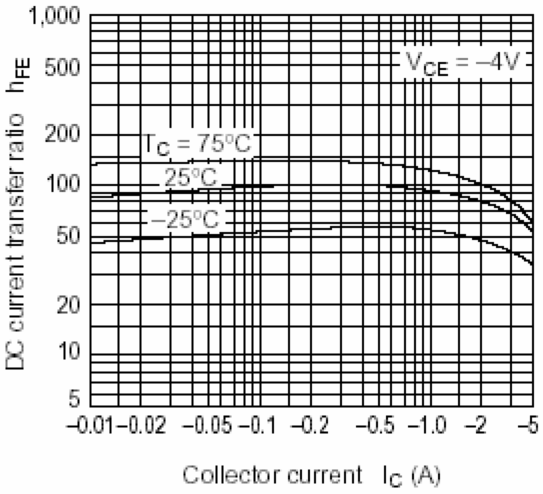

Fig.5 **DC current Gain**

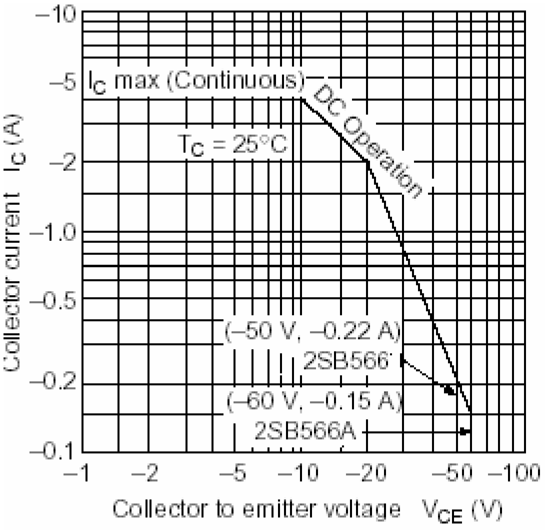

Fig.6 **Safe Operating Area**

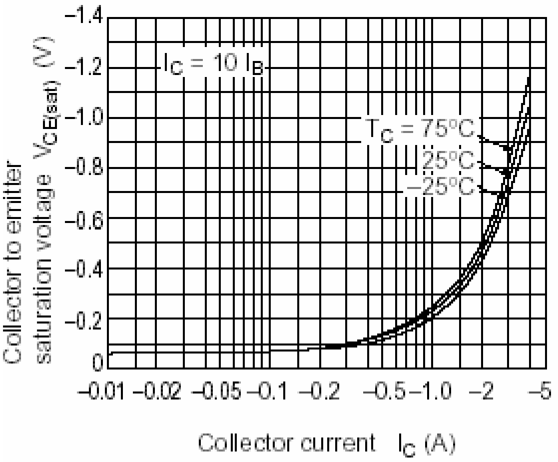

Fig.7 **Collector-Emitter Saturation Voltage**