

## DESCRIPTION

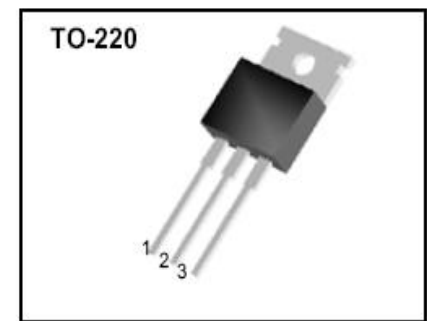
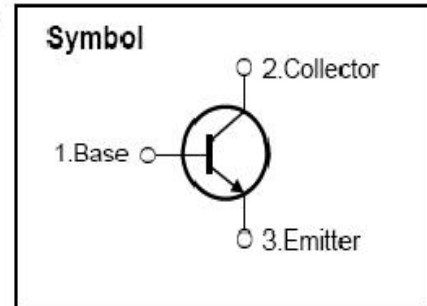
- With TO-220 package
- Low collector saturation voltage
- Complement to type 2SD880

## APPLICATIONS

- Audio frequency power amplifier

## PINNING

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



## Absolute maximum ratings (Ta=25℃)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	-60	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	-60	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-7	V
I <sub>C</sub>	Collector current		-3	A
I <sub>B</sub>	Base current		-0.5	A
P <sub>C</sub>	Collector power dissipation	T <sub>a</sub> =25℃	1.5	W
		T <sub>C</sub> =25℃	30	
T <sub>j</sub>	Junction temperature		150	℃
T <sub>stg</sub>	Storage temperature		-55~150	℃

## CHARACTERISTICS

T<sub>j</sub>=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =-50mA; I <sub>B</sub> =0	-60			V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =-0.5A; V <sub>CE</sub> =-5V		-0.7	-1.0	V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-3A; I <sub>B</sub> =-0.3A		-0.5	-1.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-60V; I <sub>E</sub> =0			-0.1	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-7V; I <sub>C</sub> =0			-0.1	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-0.5A; V <sub>CE</sub> =-5V	60		200	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-3A; V <sub>CE</sub> =-5V	20			
C <sub>ob</sub>	Collector output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =-10V; f=1MHz		150		pF
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-0.5A; V <sub>CE</sub> =-5V		9		MHz

### Switching times

t <sub>on</sub>	Turn-on time	V <sub>CC</sub> =-30V; R <sub>L</sub> =15Ω I <sub>B1</sub> =-I <sub>B2</sub> =-0.2A		0.4		μs
t <sub>s</sub>	Storage time			1.7		μs
t <sub>f</sub>	Fall time			0.5		μs

### ◆ h<sub>FE-1</sub> classifications

O	Y
60-120	100-200

PACKAGE OUTLINE

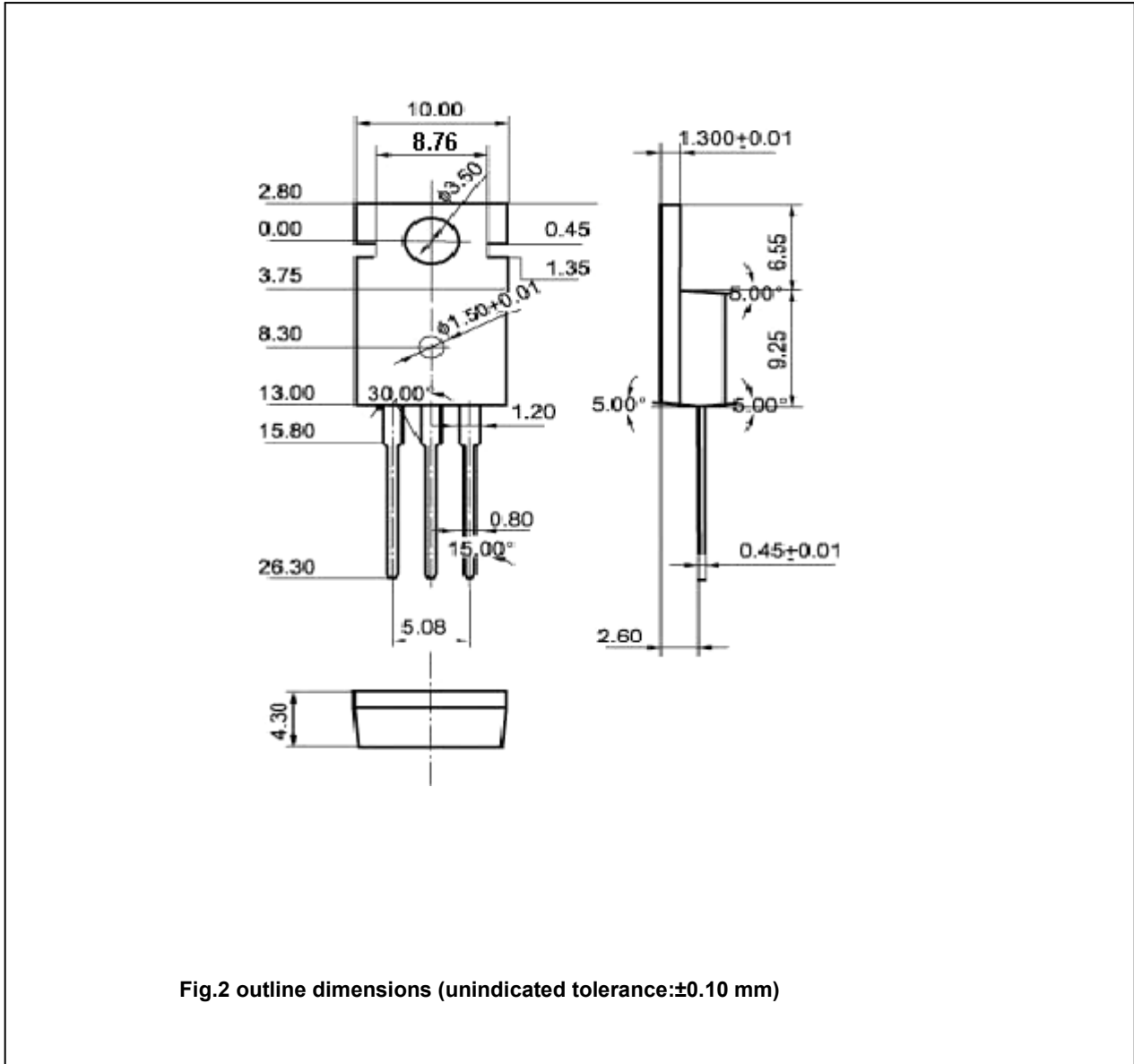


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.10$  mm)

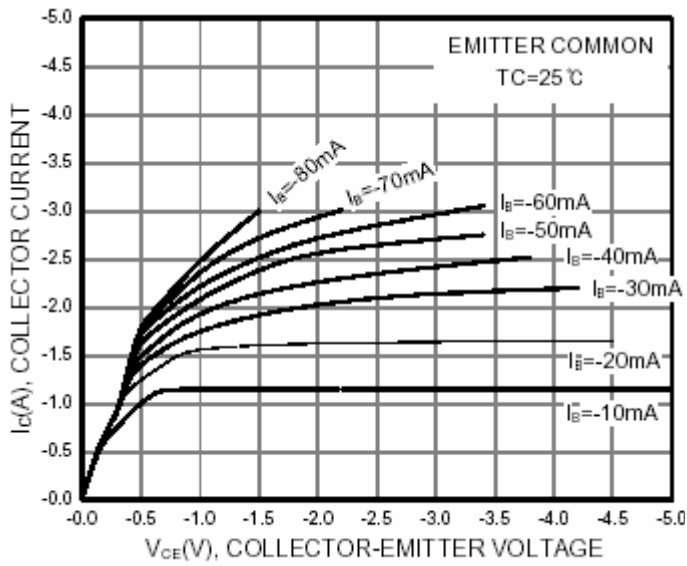


Fig.3 Static Characteristic

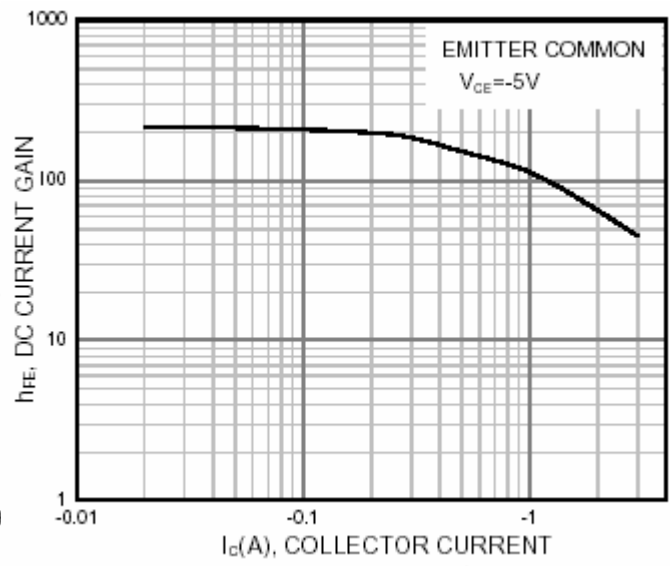


Fig.4 DC current Gain

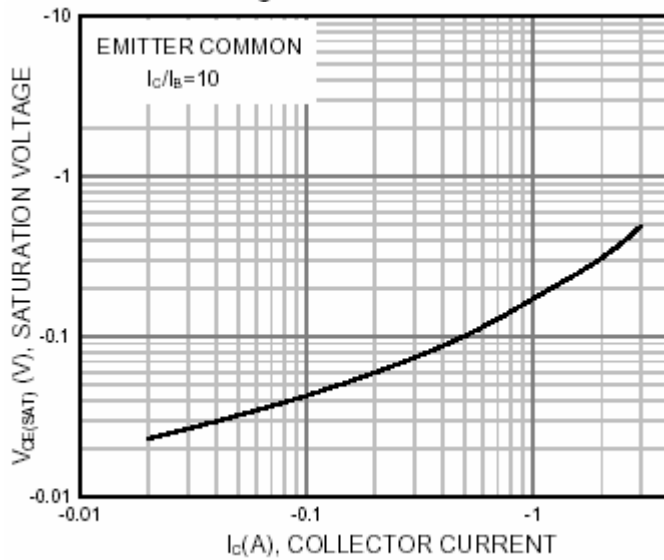


Fig.5 Collector-Emitter Saturation Voltage

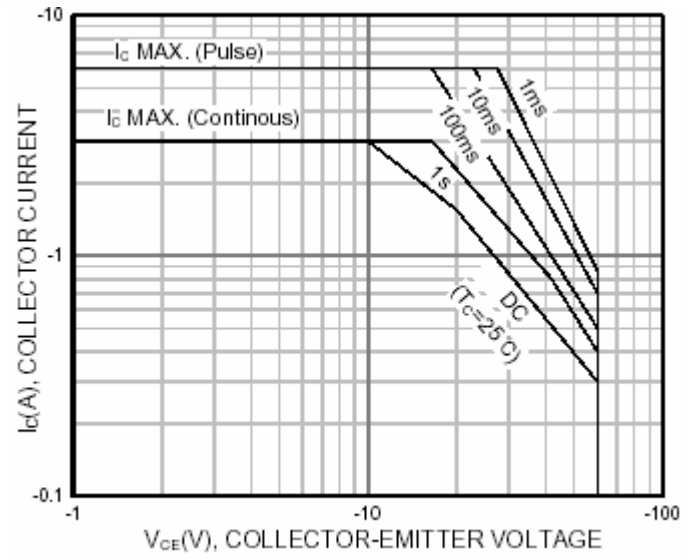


Fig.6 Safe Operating Area

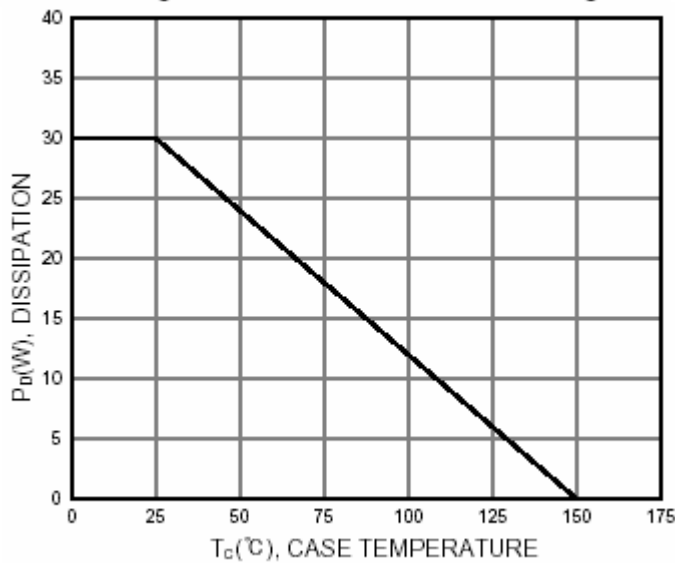


Fig.7 Power Derating