

**Silicon NPN Power Transistors**

**2SC1756**

**DESCRIPTION**

- With TO-220 package
- High breakdown voltage

**APPLICATIONS**

- For TV chroma,video ,audio output applications

**PINNING**

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

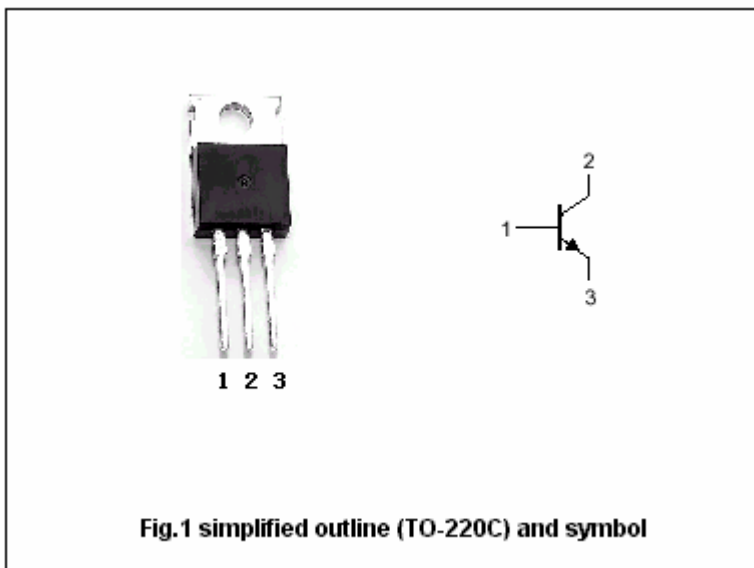


Fig.1 simplified outline (TO-220C) and symbol

**Absolute maximum ratings (Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	300	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	300	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	7	V
I <sub>C</sub>	Collector current (DC)		0.2	A
I <sub>CM</sub>	Collector current-peak		0.7	A
P <sub>C</sub>	Collector power dissipation	T <sub>a</sub> =25°C	1.2	W
		T <sub>C</sub> =25°C	15	
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-40~150	°C

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## CHARACTERISTICS

T<sub>j</sub>=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =1mA ; I <sub>B</sub> =0	300			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =50mA ; I <sub>B</sub> =5mA			2.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =200V ; I <sub>E</sub> =0			0.1	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V ; I <sub>C</sub> =0			0.1	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =10mA ; V <sub>CE</sub> =10V	40		200	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =10mA ; V <sub>CE</sub> =30V	50			MHz
C <sub>OB</sub>	Collector output capacitance	f=1MHz ; V <sub>CB</sub> =50V			5.3	pF

◆ h<sub>FE</sub> classifications

C	D	E
40-80	60-120	100-200

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PACKAGE OUTLINE

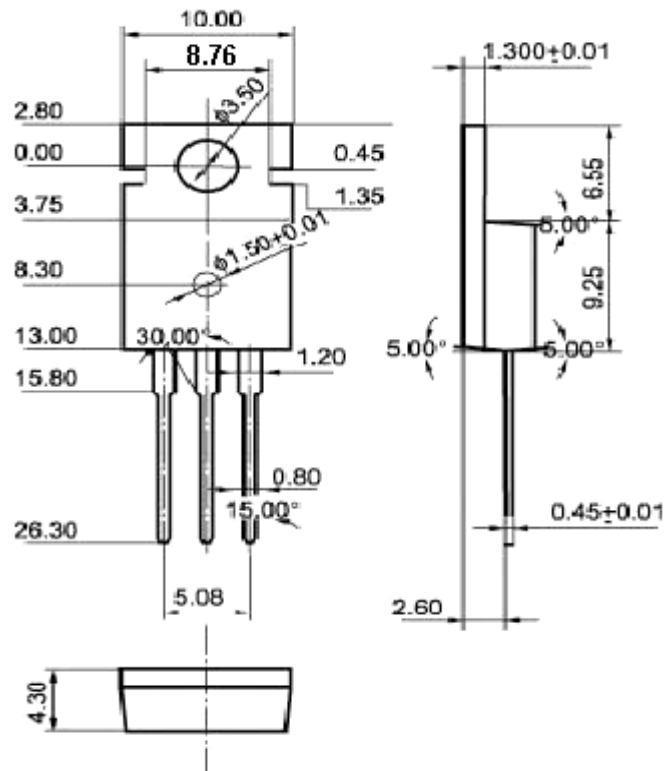


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.10$  mm)

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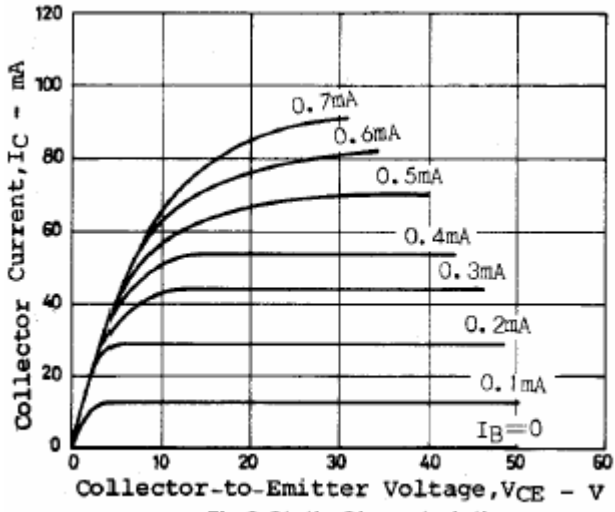


Fig.3 Static Characteristic

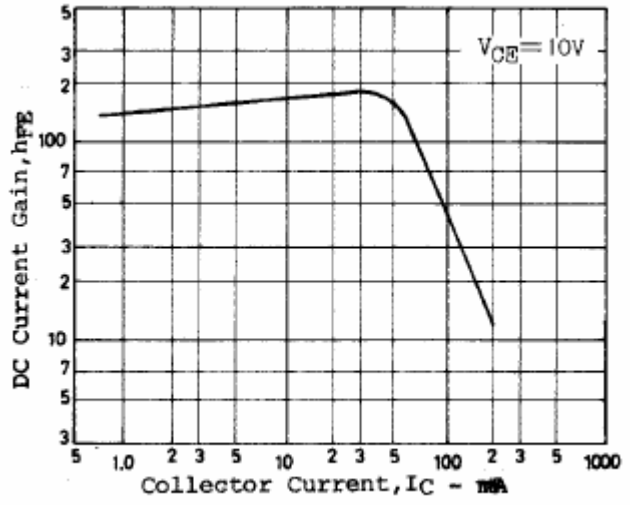


Fig.4 DC current Gain

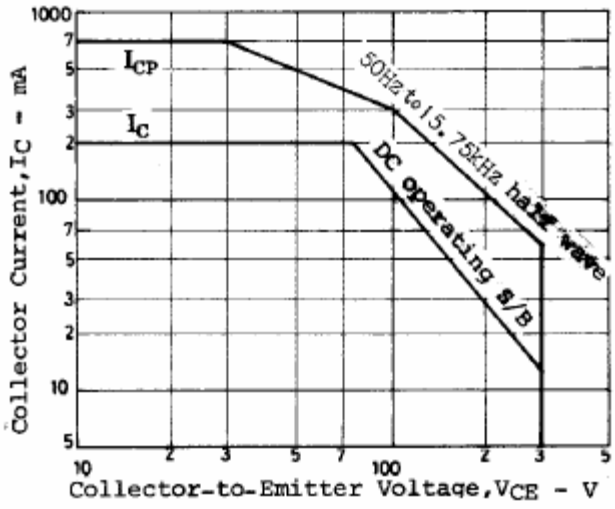


Fig.5 Safe Operating Area