

Silicon NPN Power Transistors

2SD1263 2SD1263A

**DESCRIPTION**

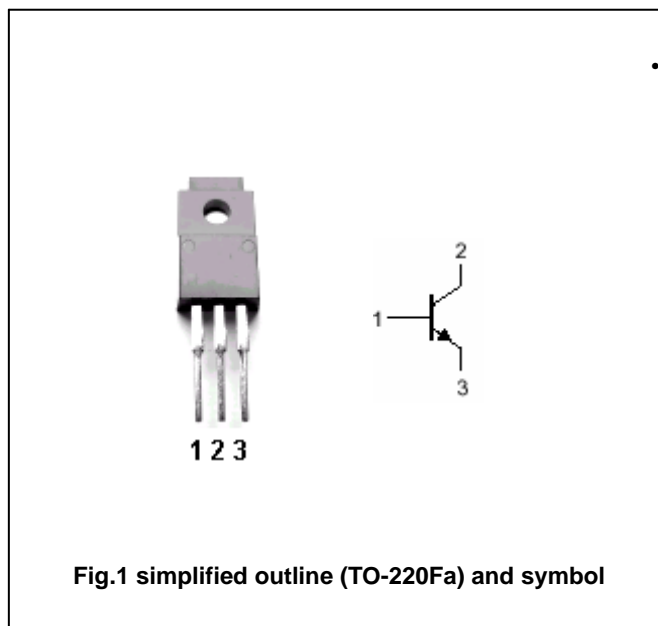
- With TO-220Fa package
- High breakdown voltage

**APPLICATIONS**

- For power amplification

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



**Absolute maximum ratings(Ta=25°C)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2SD1263	350	V
		2SD1263A	400	
V <sub>CEO</sub>	Collector-emitter voltage	2SD1263	250	V
		2SD1263A	300	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		0.75	A
I <sub>CM</sub>	Collector current-peak		1.5	A
P <sub>C</sub>	Collector power dissipation	T <sub>a</sub> =25°C	2	W
		T <sub>C</sub> =25°C	35	
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

## Silicon NPN Power Transistors

## 2SD1263 2SD1263A

## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT	
V <sub>CEO</sub>	Collector-emitter voltage	2SD1263	I <sub>C</sub> =30mA, I <sub>B</sub> =0	250			V
		2SD1263A		300			
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =1A, I <sub>B</sub> =0.2A			1.0	V	
V <sub>BE</sub>	Base-emitter voltage	I <sub>C</sub> =1A; V <sub>CE</sub> =10V			1.5	V	
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			1.0	mA	
I <sub>CEO</sub>	Collector cut-off current	2SD1263	V <sub>CE</sub> =150V; I <sub>B</sub> =0			1.0	mA
		2SD1263A	V <sub>CE</sub> =200V; I <sub>B</sub> =0			1.0	mA
I <sub>CES</sub>	Collector cut-off current	2SD1263	V <sub>CE</sub> =350V; V <sub>BE</sub> =0			1.0	mA
		2SD1263A	V <sub>CE</sub> =400V; V <sub>BE</sub> =0			1.0	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =0.3A; V <sub>CE</sub> =10V	70		250		
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =1A; V <sub>CE</sub> =10V	10				
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A; V <sub>CE</sub> =5V, f=10MHz		30		MHz	

## Switching times

t <sub>on</sub>	Turn-on time	I <sub>C</sub> =1A; I <sub>B1</sub> =-I <sub>B2</sub> =0.1A V <sub>CC</sub> =50V		0.5		μs
t <sub>s</sub>	Storage time			2		μs
t <sub>f</sub>	Fall time			0.5		μs

◆ h<sub>FE-1</sub> Classifications

Q	P
70-150	120-250

Silicon NPN Power Transistors

2SD1263 2SD1263A

PACKAGE OUTLINE

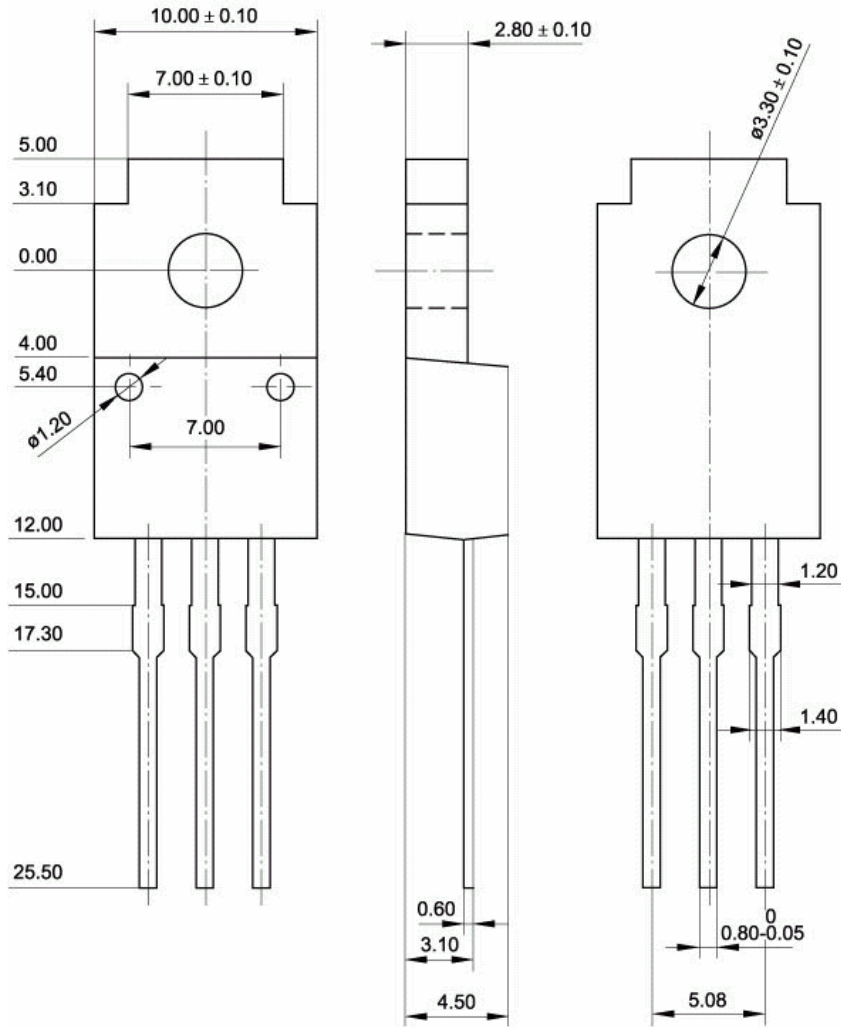


Fig.2 Outline dimensions (unindicated tolerance:  $\pm 0.15$  mm)

Silicon NPN Power Transistors

2SD1263 2SD1263A

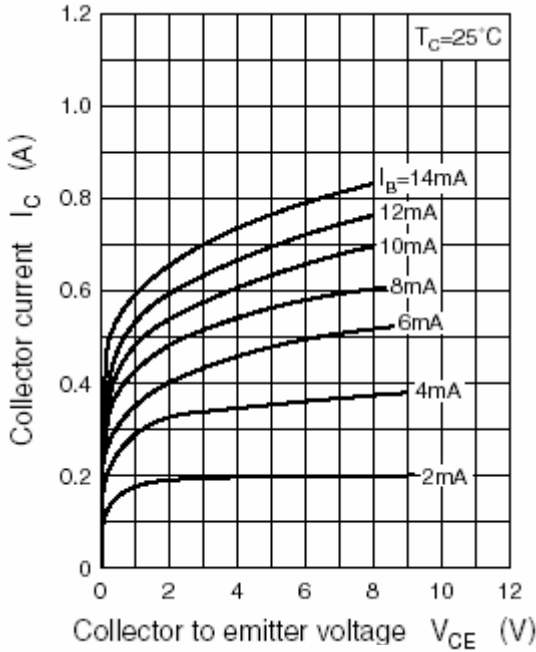


Fig.3 Static Characteristic

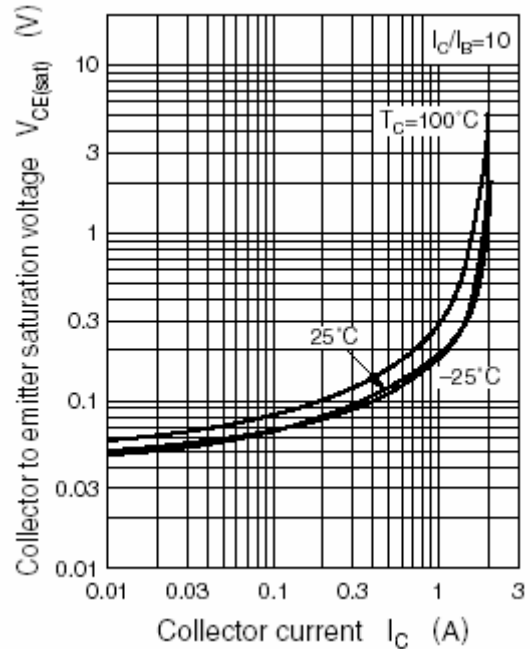


Fig.4 Collector-Emitter Saturation Voltage

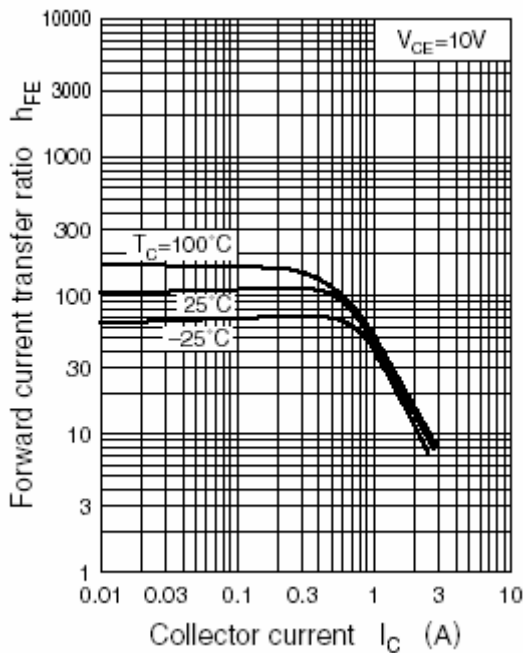


Fig.5 DC current Gain

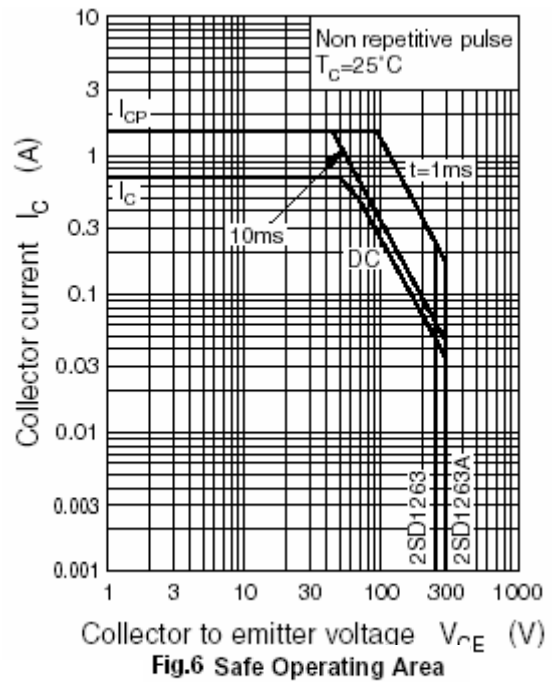


Fig.6 Safe Operating Area