

Silicon PNP Power Transistors

2SA814 2SA815

DESCRIPTION

- With TO-220 package
- Complement to type 2SC1624/1625
- High breakdown voltage

APPLICATIONS

- Medium power amplifier applications
- Driver stage amplifier applications

PINNING

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

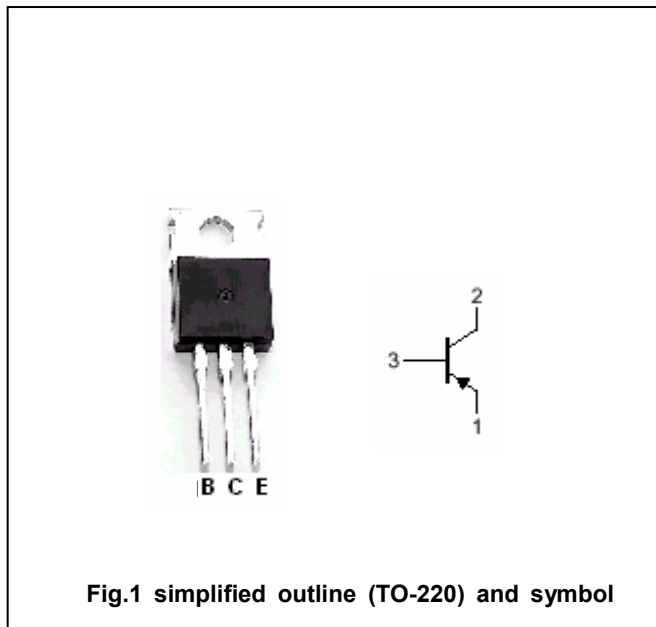


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	2SA814	-120	V
		2SA815	-100	
V <sub>CEO</sub>	Collector-emitter voltage	2SA814	-120	V
		2SA815	-100	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	-5	V
I <sub>C</sub>	Collector current		-1	A
I <sub>E</sub>	Emitter current		1	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	15	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°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> =-10mA, I <sub>B</sub> =0	-120			V
			-100			
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =-1.0mA, I <sub>C</sub> =0	-5			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =-500mA; I <sub>B</sub> =-50mA			-0.5	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =-500mA; V <sub>CE</sub> =-5V			-1.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =-50V; I <sub>E</sub> =0			-1.0	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =-5V; I <sub>C</sub> =0			-1.0	μA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =-150mA; V <sub>CE</sub> =-5V	70		240	
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =-500mA; V <sub>CE</sub> =-5V	40			
C <sub>OB</sub>	Collector output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =-10V; f=1MHz		30		pF
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =-150mA; V <sub>CE</sub> =-5V	10	30		MHz

◆ h<sub>FE-1</sub> Classifications

O	Y
70-140	120-240

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PACKAGE OUTLINE

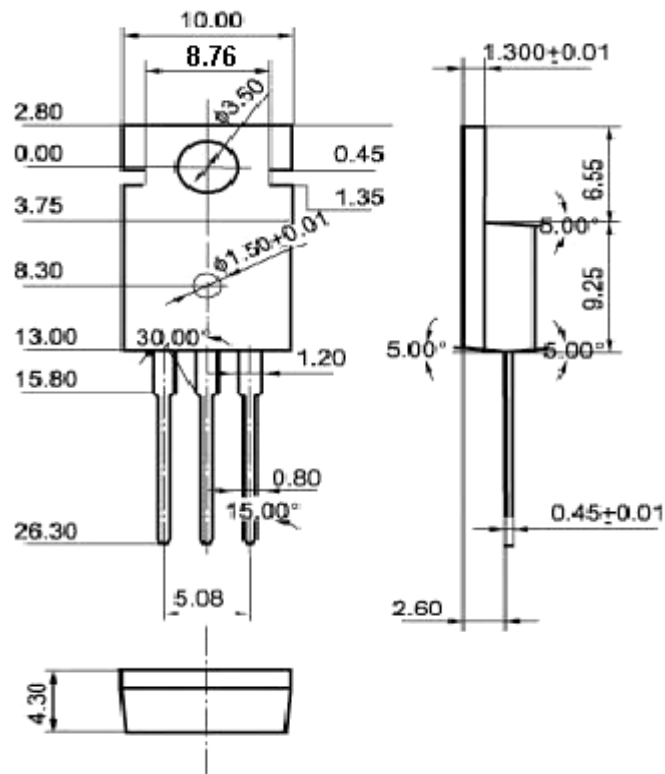


Fig.2 Outline dimensions(unindicated tolerance:  $\pm 0.10$  mm)