

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

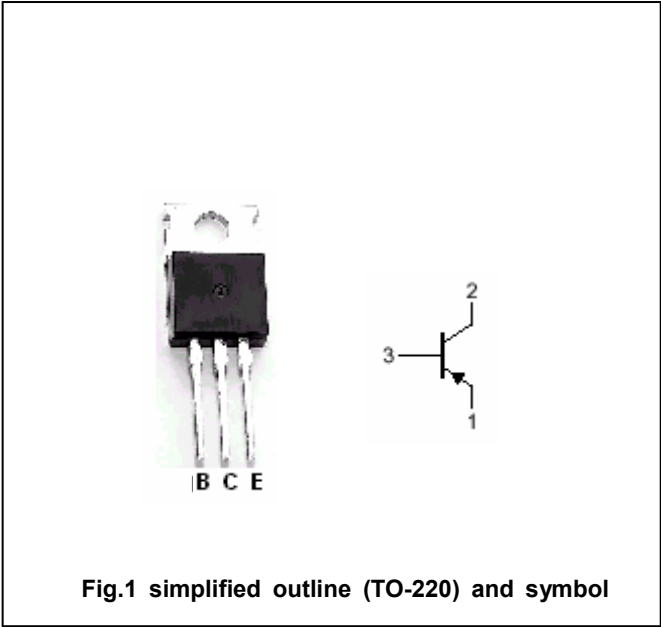


Fig.1 simplified outline (TO-220) and symbol

Absolute maximum ratings(Ta=25℃)

SYMBOL	PARAMETER		CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2SA814	Open emitter	-120	V
		2SA815		-100	
V _{CEO}	Collector-emitter voltage	2SA814	Open base	-120	V
		2SA815		-100	
V _{EBO}	Emitter-base voltage		Open collector	-5	V
I _C	Collector current			-1	A
I _E	Emitter current			1	A
P _C	Collector power dissipation		T _C =25℃	15	W
T _j	Junction temperature			150	℃
T _{stg}	Storage temperature			-55~150	℃

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CHARACTERISTICS

Tj=25°C unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	2SA814	$I_C=-10mA, I_B=0$	-120			V
		2SA815		-100			
$V_{(BR)EBO}$	Emitter-base breakdown voltage		$I_E=-1.0mA, I_C=0$	-5			V
V_{CEsat}	Collector-emitter saturation voltage		$I_C=-500mA; I_B=-50mA$			-0.5	V
V_{BE}	Base-emitter on voltage		$I_C=-500mA; V_{CE}=-5V$			-1.0	V
I_{CBO}	Collector cut-off current		$V_{CB}=-50V; I_E=0$			-1.0	μA
I_{EBO}	Emitter cut-off current		$V_{EB}=-5V; I_C=0$			-1.0	μA
h_{FE-1}	DC current gain		$I_C=-150mA; V_{CE}=-5V$	70		240	
h_{FE-2}	DC current gain		$I_C=-500mA; V_{CE}=-5V$	40			
C_{OB}	Collector output capacitance		$I_E=0; V_{CB}=-10V; f=1MHz$		30		pF
f_T	Transition frequency		$I_C=-150mA; V_{CE}=-5V$	10	30		MHz

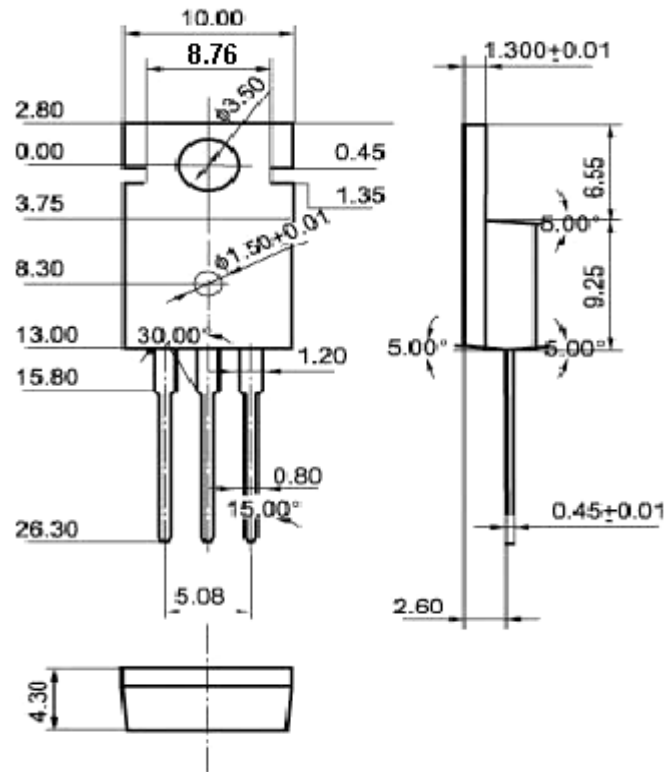
◆ h_{FE-1} Classifications

O	Y
70-140	120-240

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PACKAGE OUTLINE

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