

Silicon PNP Power Transistors

2SA814 2SA815

DESCRIPTION

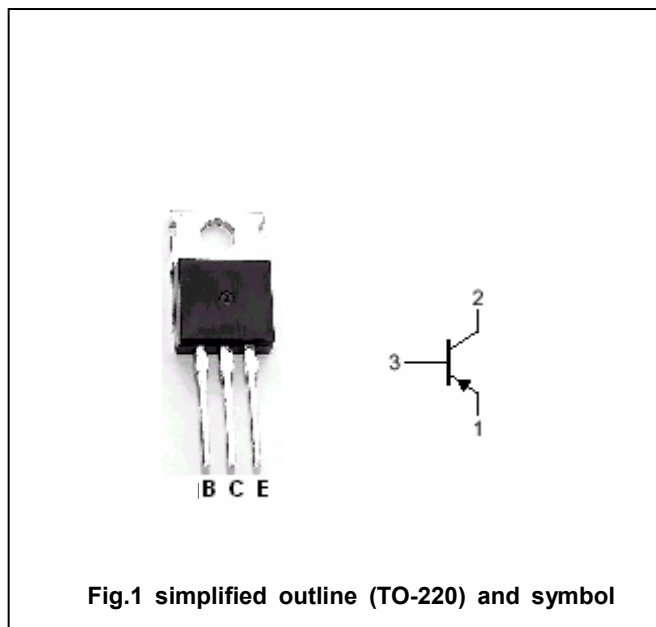
- With TO-220 package
- Complement to type 2SC1624/1625
- High breakdown voltage

APPLICATIONS

- Medium power amplifier applications
- Driver stage amplifier applications

PINNING

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

Absolute maximum ratings($T_a=25^\circ\text{C}$)

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		$T_C=25^\circ\text{C}$	15	W
T_j	Junction temperature			150	$^\circ\text{C}$
T_{stg}	Storage temperature			-55~150	$^\circ\text{C}$

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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

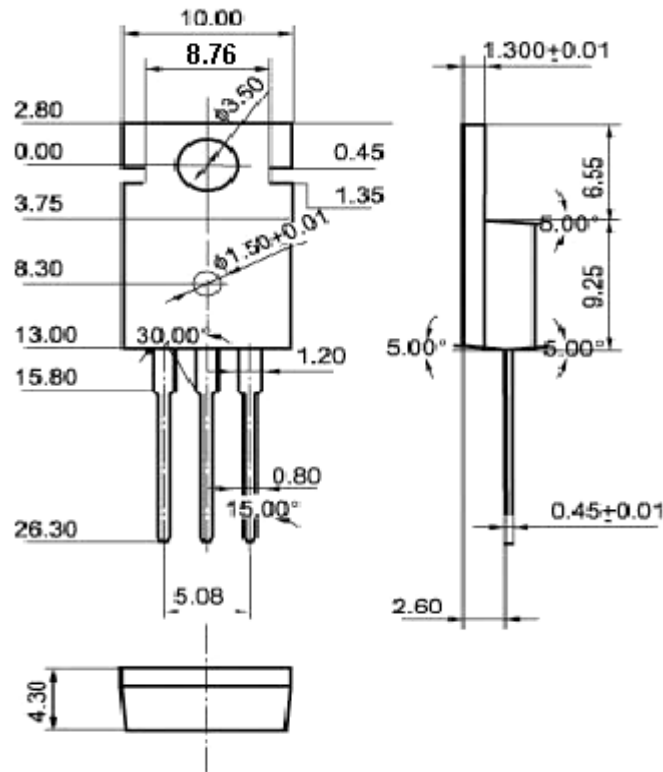
◆ h_{FE-1} Classifications

O	Y
70-140	120-240

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PACKAGE OUTLINE

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