



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

2SB857

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

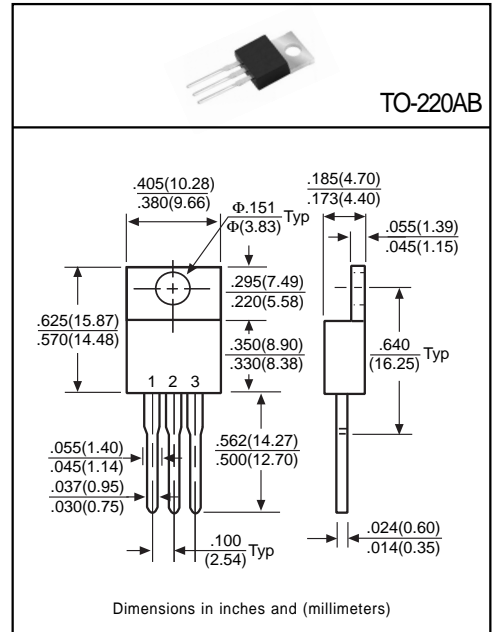
Designed for low frequency power amplifier.

Pinning

- 1 = Base
- 2 = Collector
- 3 = Emitter

Absolute Maximum Ratings(T<sub>A</sub>=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V <sub>CB0</sub>	-70	V
Collector-Emitter Voltage	V <sub>CE0</sub>	-50	V
Emitter-Base Voltage	V <sub>EB0</sub>	-5	V
Collector Current (continuous)	I <sub>C</sub>	-4	A
Collector Current (peak)	I <sub>C</sub>	-8	A
Total Power Dissipation(T <sub>C</sub> =25°C)	P <sub>D</sub>	40	W
Junction Temperature	T <sub>J</sub>	+150	°C
Storage Temperature	T <sub>STG</sub>	-55 to +150	°C



Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BV <sub>CB0</sub>	-70	-	-	V	I <sub>C</sub> =-10μA, I <sub>E</sub> =0
Collector-Emitter Breakdown Voltage	BV <sub>CE0</sub>	-50	-	-	V	I <sub>C</sub> =-50mA, I <sub>B</sub> =0
Emitter-Base Breakdown Voltage	BV <sub>EB0</sub>	-5	-	-	V	I <sub>E</sub> =-10μA, I <sub>C</sub> =0
Collector Cutoff Current	I <sub>CBO</sub>	-	-	-1	μA	V <sub>CB</sub> =-50V, I <sub>E</sub> =0
Collector-Emitter Saturation Voltage <sup>(1)</sup>	V <sub>CE(sat)</sub>	-	-	-1	V	I <sub>C</sub> =-2A, I <sub>B</sub> =-0.2A
Base-Emitter On Voltage <sup>(1)</sup>	V <sub>BE(on)</sub>	-	-	-1	V	I <sub>C</sub> =-1A, V <sub>CE</sub> =-4V
DC Current Gain <sup>(1)</sup>	h <sub>FE1</sub>	35	-	-	-	I <sub>C</sub> =-0.1A, V <sub>CE</sub> =-4V
	h <sub>FE2</sub>	60	-	320	-	I <sub>C</sub> =-1A, V <sub>CE</sub> =-4V
Transition Frequency	f <sub>T</sub>	-	15	-	MHz	I <sub>C</sub> =-500mA, V <sub>CE</sub> =-4V, f=100MHz

(1)Pulse Test: Pulse Width ≤ 380μs, Duty Cycle ≤ 2%

Classification of h<sub>FE2</sub>

Rank	B	C	D
Range	60~120	100~200	160~320