



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

BC817

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

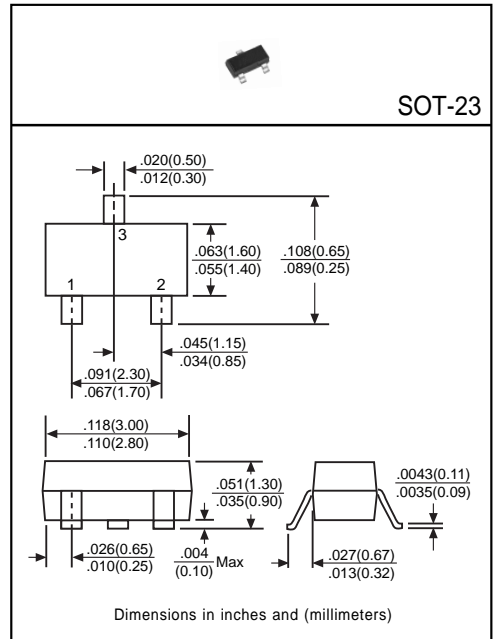
Designed for use in drive and output stages of audio amplifiers.

Pinning

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

Absolute Maximum Ratings (TA=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage	V _{CES}	50	V
	V _{CEO}	45	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current	I _C	500	mA
Total Power Dissipation	P _D	225	mW
Junction Temperature	T _J	+150	°C
Storage Temperature	T _{STG}	-55 to +150	°C



Electrical Characteristics

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

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Emitter Breakdown Voltage	BV _{CES}	50	-	-	V	I _C =10μA
	BV _{CEO}	45	-	-	V	I _C =10mA
Emitter-Base Breakdown Voltage	BV _{EBO}	5	-	-	V	I _E =1μA
Collector Cutoff Current	I _{CBO}	-	-	0.1	μA	V _{CB} =20V
Emitter Cutoff Current	I _{EBO}	-	-	0.1	μA	V _{EB} =4V
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)}	-	-	0.7	V	I _C =500mA, I _B =50mA
Base-Emitter On Voltage	V _{BE(on)}	-	-	1.2	V	I _C =300mA, V _{CE} =1V
DC Current Gain ⁽¹⁾	h _{FE}	100	-	630	-	I _C =100mA, V _{CE} =1V
Transition Frequency	f _T	-	100	-	MHz	I _C =10mA, V _{CE} =5V, f=100MHz
Output Capacitance	C _{ob}	-	-	12	pF	V _{CB} =10V, f=1MHz, I _E =0

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

Classification of hFE

Rank	16	25	40
Range	100~250	160~400	250~630