



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

TIP42C

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

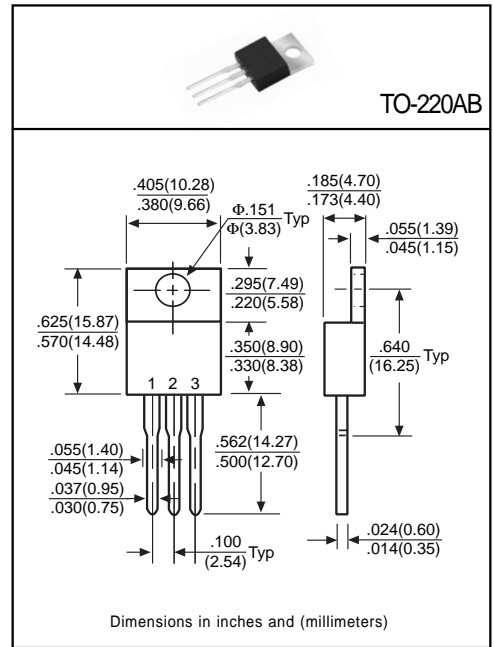
Designed for use in general purpose amplifier and switching applications.

Pinning

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

Absolute Maximum Ratings (TA=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	-100	V
Collector-Emitter Voltage	V _{CE0}	-100	V
Emitter-Base Voltage	V _{EB0}	-5	V
Collector Current	I _C	-6	A
Total Power Dissipation (T _C =25°C)	P _D	65	W
Total Power Dissipation	P _D	2	W
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-Base Breakdown Voltage	BV _{CB0}	-100	-	-	V	I _C =-1mA, I _E =0
Collector-Emitter Breakdown Voltage	BV _{CE0}	-100	-	-	V	I _C =-30mA, I _B =0
Collector Cutoff Current	I _{CES}	-	-	-400	μA	V _{CE} =-100V
	I _{CEO}	-	-	-700	μA	V _{CE} =-60V
Emitter Cutoff Current	I _{EBO}	-	-	-1	mA	V _{EB} =-5V
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)}	-	-	-1.5	V	I _C =-6A, I _B =-0.6A
Base-Emitter On Voltage ⁽¹⁾	V _{BE(on)}	-	-	-2	V	I _C =-6A, V _{CE} =-4V
DC Current Gain ⁽¹⁾	h _{FE1}	30	-	-	-	I _C =-0.3A, V _{CE} =-4V
	h _{FE2}	15	-	75	-	I _C =-3A, V _{CE} =-4V
Transition Frequency	f _T	3	-	-	MHz	I _C =-0.1A, V _{CE} =-5V, f=1MHz

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