



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

2N4403

TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

Description

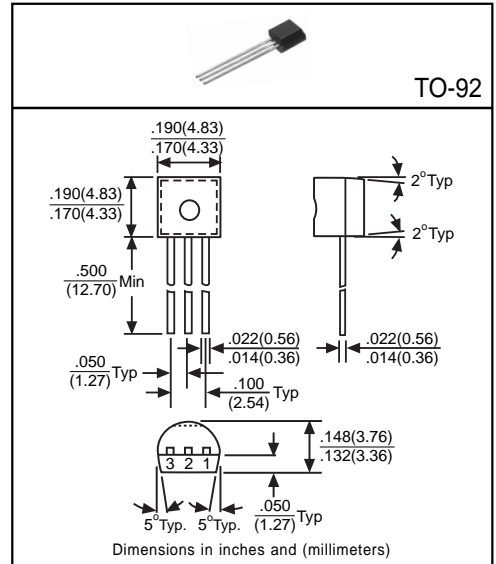
Designed for general purpose switching and amplifier applications.

Pinning

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

Absolute Maximum Ratings (TA=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	-40	V
Collector-Emitter Voltage	V _{CE0}	-40	V
Emitter-Base Voltage	V _{EB0}	-5	V
Collector Current	I _c	-600	mA
Total Power Dissipation	P _D	625	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-Base Breakdown Voltage	BV _{CB0}	-40	-	-	V	I _c =-100μA, I _E =0
Collector-Emitter Breakdown Voltage	BV _{CE0}	-40	-	-	V	I _c =-1mA, I _B =0
Emitter-Base Breakdown Voltage	BV _{EB0}	-5	-	-	V	I _E =-10μA, I _c =0
Collector Cutoff Current	I _{CX}	-	-	-0.1	μA	V _{CE} =-35V, V _{BE} =-0.4V
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)1}	-	-	-0.4	V	I _c =-150mA, I _B =-15mA
	V _{CE(sat)2}	-	-	-0.75	V	I _c =-500mA, I _B =-50mA
Base-Emitter Saturation Voltage ⁽¹⁾	V _{BE(sat)1}	-0.75	-	-0.95	V	I _c =-150mA, I _B =-15mA
	V _{BE(sat)2}	-	-	-1.3	V	I _c =-500mA, I _B =-50mA
DC Current Gain ⁽¹⁾	h _{FE1}	30	-	-	-	I _c =-0.1mA, V _{CE} =-1V
	h _{FE2}	60	-	-	-	I _c =-1mA, V _{CE} =-1V
	h _{FE3}	100	-	-	-	I _c =-10mA, V _{CE} =-1V
	h _{FE4}	100	-	300	-	I _c =-150mA, V _{CE} =-2V
	h _{FE5}	20	-	-	-	I _c =-500mA, V _{CE} =-2V
Transition Frequency	f _T	200	-	-	MHz	I _c =-20mA, V _{CE} =-10V, f=100MHz
Output Capacitance	C _{ob}	-	-	8.5	pF	V _{CE} =-10V, I _E =0, f=1MHz

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

Classification of h_{FE4}

Rank	A	B
Range	100~210	190~300