



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

BC635

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

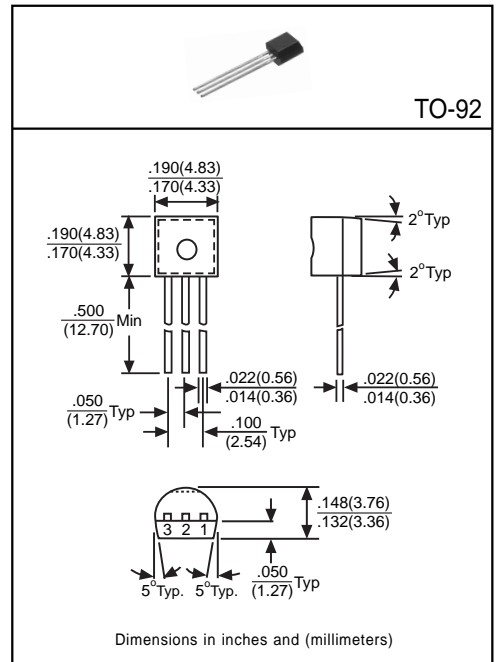
Designed for general purpose switching and amplifier applications.

Pinning

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

Absolute Maximum Ratings (T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage	V _{CES}	45	V
	V _{CEO}	45	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current	I _C	1	A
Total Power Dissipation	P _D	1	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-Emitter Breakdown Voltage	BV _{CEO}	45	-	-	V	I _C =10mA, I _B =0
Emitter-Base Breakdown Voltage	BV _{EBO}	5	-	-	V	I _E =100μA, I _C =0
Collector Cutoff Current	I _{CBO}	-	-	0.1	μA	V _{CB} =30V, I _E =0
Emitter Cutoff Current	I _{EBO}	-	-	0.1	μA	V _{EB} =5V, I _C =0
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)}	-	-	0.5	V	I _C =500mA, I _B =50mA
Base-Emitter On Voltage ⁽¹⁾	V _{BE(on)}	-	-	1	V	I _C =500mA, V _{CE} =2V
DC Current Gain ⁽¹⁾	h _{FE1}	25	-	-	-	I _C =5mA, V _{CE} =2V
	h _{FE2}	40	-	250	-	I _C =150mA, V _{CE} =2V
	h _{FE3}	25	-	-	-	I _C =500mA, V _{CE} =2V
Transition Frequency	f _T	-	100	-	MHz	I _C =10mA, V _{CE} =5V, f=50MHz

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