



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

2SC2120

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

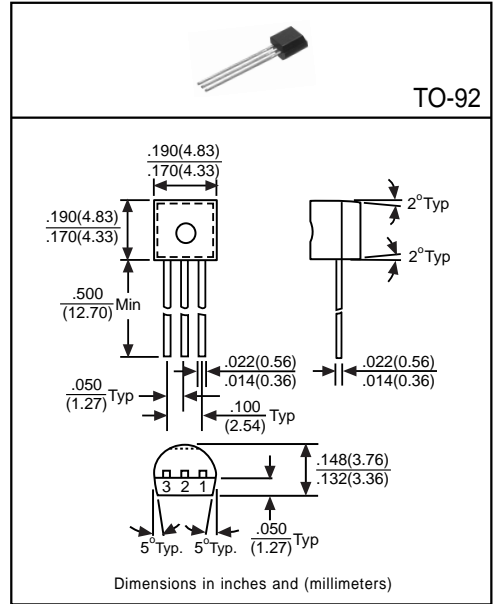
Designed for audio frequency amplifier applications.

Pinning

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

Absolute Maximum Ratings (T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	35	V
Collector-Emitter Voltage	V _{CE0}	30	V
Emitter-Base Voltage	V _{EB0}	5	V
Collector Current	I _C	800	mA
Total Power Dissipation	P _D	600	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}	35	-	-	V	I _C =100μA, I _E =0
Collector-Emitter Breakdown Voltage	BV _{CE0}	30	-	-	V	I _C =2mA, I _B =0
Emitter-Base Breakdown Voltage	BV _{EB0}	5	-	-	V	I _E =100μA, I _C =0
Collector Cutoff Current	I _{CB0}	-	-	0.1	μA	V _{CB} =35V, I _E =0
Emitter Cutoff Current	I _{EB0}	-	-	0.1	μA	V _{EB} =5V, I _C =0
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)}	-	0.28	0.7	V	I _C =500mA, I _B =20mA
Base-Emitter Saturation Voltage ⁽¹⁾	V _{BE(sat)}	-	0.98	1.3	V	I _C =500mA, I _B =20mA
DC Current Gain ⁽¹⁾	h _{FE1}	45	-	-	-	I _C =5mA, V _{CE} =1V
	h _{FE2}	100	-	320	-	I _C =100mA, V _{CE} =1V
	h _{FE3}	40	-	-	-	I _C =500mA, V _{CE} =1V
Transition Frequency	f _T	-	120	-	MHz	I _C =10mA, V _{CE} =5V
Output Capacitance	C _{ob}	-	13	-	pF	V _{CB} =10V, f=1MHz, I _E =0

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

Classification of h_{FE2}

Rank	O	Y
Range	100~200	160~320