



DC COMPONENTS CO., LTD.

DISCRETE SEMICONDUCTORS

2SC1674

TECHNICAL SPECIFICATIONS OF NPN EPITAXIAL PLANAR TRANSISTOR

Description

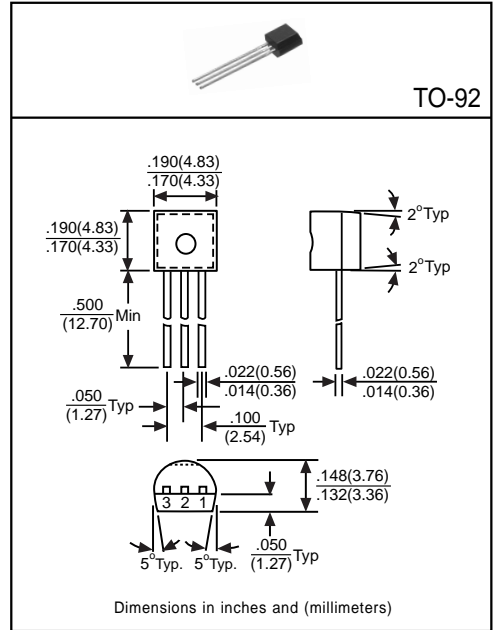
Designed for TV PIF, FM tuner RF amplifier, mixer, and oscillator applications.

Pinning

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

Absolute Maximum Ratings(T_A=25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	30	V
Collector-Emitter Voltage	V _{CEO}	20	V
Emitter-Base Voltage	V _{EBO}	4	V
Collector Current	I _C	20	mA
Total Power Dissipation	P _D	150	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}	30	-	-	V	I _C =10μA, I _E =0
Collector-Emitter Breakdown Voltage	BV _{CEO}	20	-	-	V	I _C =5mA, I _B =0
Emitter-Base Breakdown Voltage	BV _{EBO}	4	-	-	V	I _E =10μA, 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} =4V, I _C =0
Collector-Emitter Saturation Voltage ⁽¹⁾	V _{CE(sat)}	-	0.1	0.3	V	I _C =10mA, I _B =1mA
Base-Emitter On Voltage ⁽¹⁾	V _{BE(on)}	-	0.72	-	V	I _C =1mA, V _{CE} =6V
DC Current Gain ⁽¹⁾	h _{FE}	40	-	240	-	I _C =1mA, V _{CE} =6V
Transition Frequency	f _T	400	600	-	MHz	I _C =1mA, V _{CE} =6V
Output Capacitance	C _{ob}	-	-	1.3	pF	V _{CB} =6V, f=1MHz, I _E =0

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

Classification of h_{FE}

Rank	R	O	Y
Range	40~80	70~140	120~240