

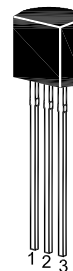
ST 2SC1674

NPN Silicon Epitaxial Planar Transistor

TV PIF amplifier, FM tuner RF amplifier.

The transistor is subdivided into three groups, R, O, and Y, according to its DC current gain

On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	30	V
Collector Emitter Voltage	V_{CEO}	20	V
Emitter Base Voltage	V_{EBO}	4	V
Collector Current	I_C	20	mA
Power Dissipation	P_{tot}	250	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE} = 6\text{ V}$, $I_C = 1\text{ mA}$	Current Gain Group R	h_{FE}	40	-	80	-
	O	h_{FE}	70	-	140	-
	Y	h_{FE}	120	-	240	-
Collector Base Cutoff Current at $V_{CB} = 30\text{ V}$	I_{CBO}	-	-	0.1	μA	
Emitter Base Cutoff Current at $V_{EB} = 4\text{ V}$	I_{EBO}	-	-	0.1	μA	
Collector Base Breakdown Voltage at $I_C = 10\text{ }\mu\text{A}$	$V_{(BR)CBO}$	30	-	-	V	
Collector Emitter Breakdown Voltage at $I_C = 5\text{ mA}$	$V_{(BR)CEO}$	20	-	-	V	
Emitter Base Breakdown Voltage at $I_E = 10\text{ }\mu\text{A}$	$V_{(BR)EBO}$	4	-	-	V	
Collector Emitter Saturation Voltage at $I_C = 10\text{ mA}$, $I_B = 1\text{ mA}$	$V_{CE(sat)}$	-	0.1	0.3	V	
Base Emitter On Voltage at $V_{CE} = 6\text{ V}$, $I_C = 1\text{ mA}$	$V_{BE(on)}$	-	0.72	-	V	
Gain Bandwidth Product at $V_{CE} = 6\text{ V}$, $I_C = 1\text{ mA}$	f_T	400	600	-	MHz	
Output Capacitance at $V_{CB} = 6\text{ V}$, $f = 1\text{ MHz}$	C_{ob}	-	1.2	-	pF	
Common Source Noise Figure at $V_{CE} = 6\text{ V}$, $f = 100\text{ MHz}$, $I_E = 1\text{ mA}$, $R_S = 50\text{ }\Omega$	NF	-	3	5	dB	