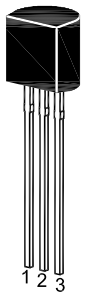
ST 2SC1675

NPN Silicon Epitaxial Planar Transistor

FM/AM RF AMP, MIX, CONV, OSC, IF

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

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



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

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	50	mA
Collector Power Dissipation	P_{tot}	250	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V_{CE} = 6 V, I_C = 1 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} = 50 V		I_{CBO}	-	-	0.1	µA
Emitter Base Cutoff Current at V_{EB} = 5 V		I_{EBO}	-	-	0.1	µA
Collector Base Breakdown Voltage at I_C = 10 µA		$V_{(BR)CBO}$	50	-	-	V
Collector Emitter Breakdown Voltage at I_C = 5 mA		$V_{(BR)CEO}$	30	-	-	V
Emitter Base Breakdown Voltage at I_E = 10 µA		$V_{(BR)EBO}$	5	-	-	V
Collector Emitter Saturation Voltage at I_C = 10 mA, I_B = 1 mA		$V_{CE(sat)}$	-	0.08	0.3	V
Base Emitter On Voltage at V_{CE} = 6 V, I_C = 1 mA		$V_{BE(on)}$	-	0.67	0.75	V
Current Gain Bandwidth Product at V_{CE} = 6 V, I_C = 1 mA		f_T	150	300	-	MHz
Output Capacitance at V_{CB} = 6 V, f = 1 MHz		C_{ob}	-	2.0	2.5	pF

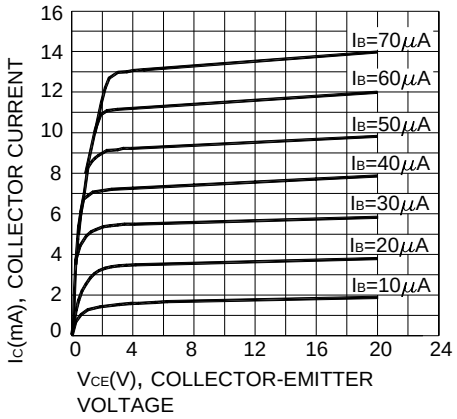


Figure 1. Static Characersitic

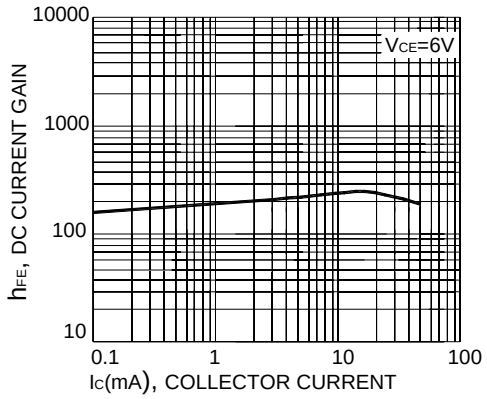


Figure 2. DC Current Gain

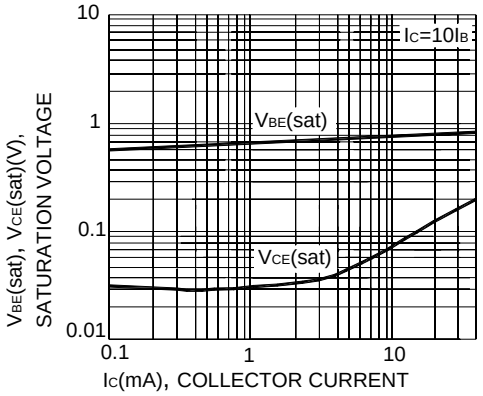


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

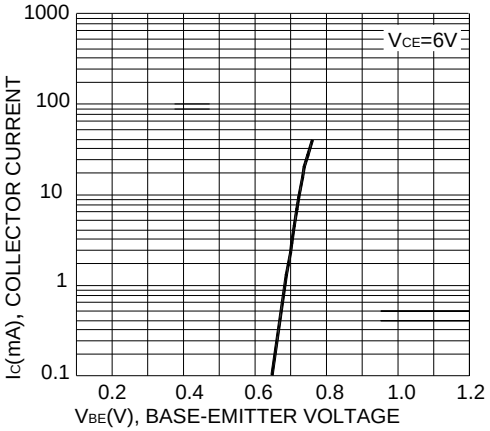


Figure 4. Base-Emitter On Voltage

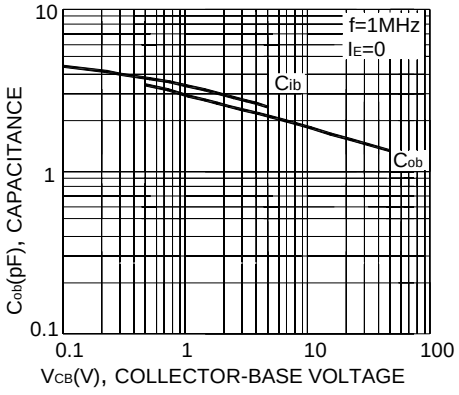


Figure 5. Input Output Capacitance

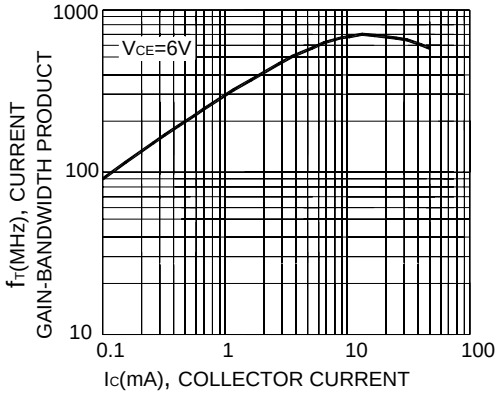


Figure 6. Current Gain Bandwidth Product