ST 2SC2715

NPN Silicon Epitaxial Planar Transistor

for high frequency amplifier applications
for FM IF, OSC stage and AM CONV. IF stage

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

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

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	35	V
Collector Emitter Voltage	V_{CEO}	30	V
Emitter Base Voltage	V_{EBO}	4	V
Collector Current	I_C	50	mA
Base Current	I_B	10	mA
Power Dissipation	P_{tot}	300	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} = 12 V, I_C = 2 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} = 35 V			I_{CBO}	-	-	0.1	µA
Emitter Base Cutoff Current at V_{EB} = 4 V			I_{EBO}	-	-	0.1	µA
Collector Emitter Saturation Voltage at I_C = 10 mA, I_B = 1 mA			$V_{CE(sat)}$	-	-	0.4	V
Base Emitter Saturation Voltage at I_C = 10 mA, I_B = 1 mA			$V_{BE(sat)}$	-	-	1	V
Current Gain Bandwidth Product at V_{CE} = 10 V, I_C = 1 mA			f_T	100	-	400	MHz
Output Capacitance at V_{CB} = 10 V, f = 1 MHz			C_{ob}	-	2	3.2	pF
Power Gain at V_{CE} = 6 V, $-I_E$ = 1 mA, f = 10.7 MHz			G_{pe}	27	30	33	dB

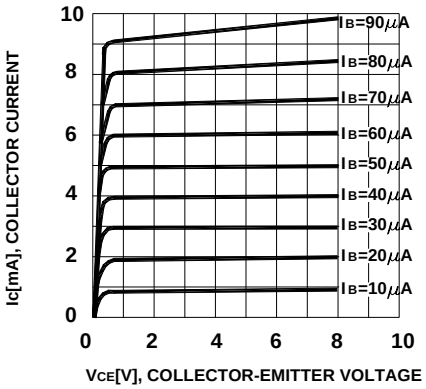

Figure 1. Static Characteristic

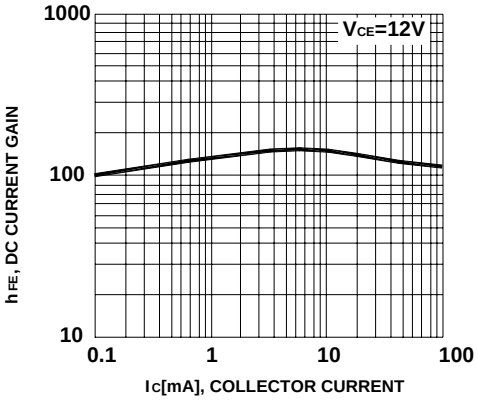

Figure 2. DC Current Gain

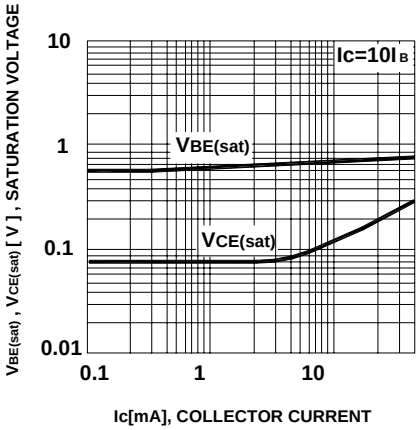

Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Satruation Voltage

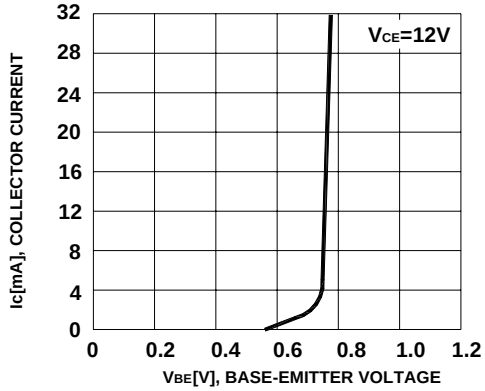

Figure 4. Base-Emitter On Voltage

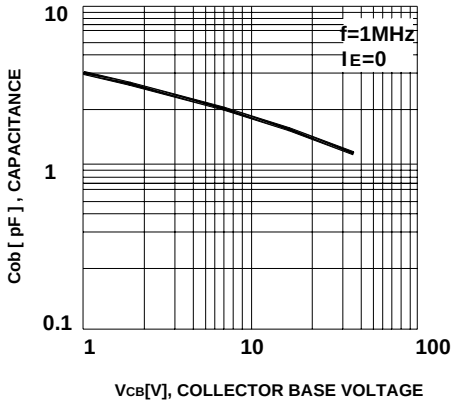

Figure 5. Collector Output Capacitance

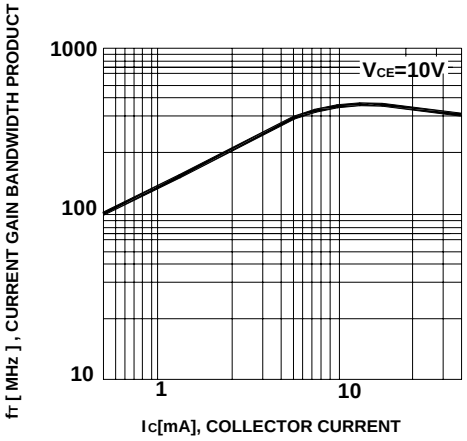

Figure 6. Current Gain Bandwidth Product