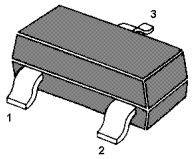
MMBTSC2715

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. Base 2. Emitter 3. Collector

TO-236 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}	200	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{Stg}	-55 to +125	°C

Characteristics at T_{amb} = 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 Cutoff Current at V_{CB} = 35 V		I_{CBO}	-	-	0.1	µA
Emitter 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

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Dated : 06/05/2006

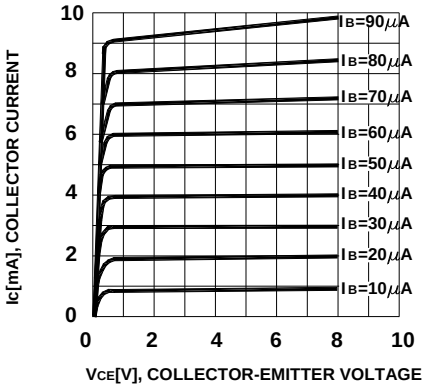

Figure 1. Static Characteristic

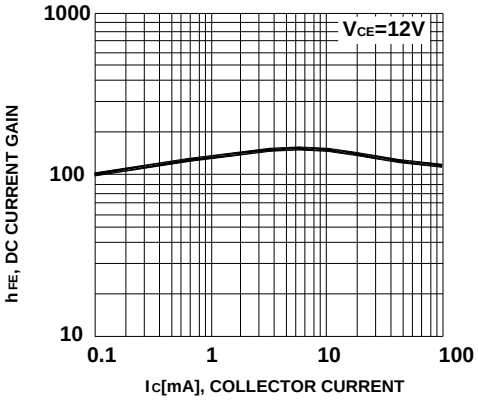

Figure 2. DC Current Gain

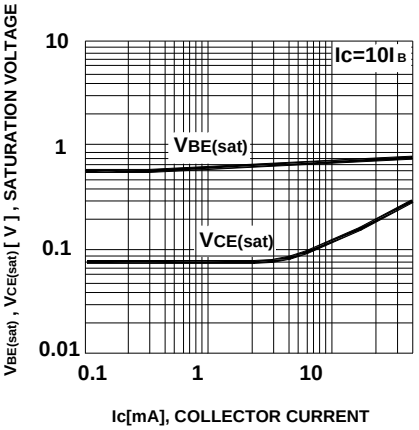

Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Satruation Voltage

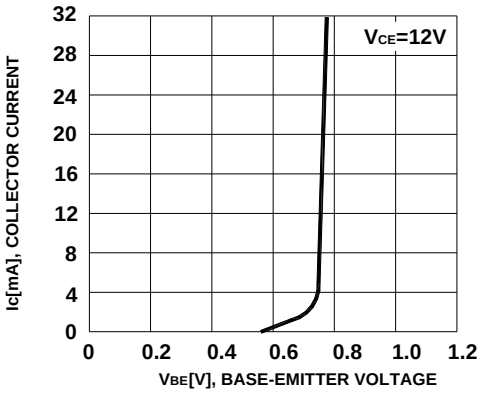

Figure 4. Base-Emitter On Voltage

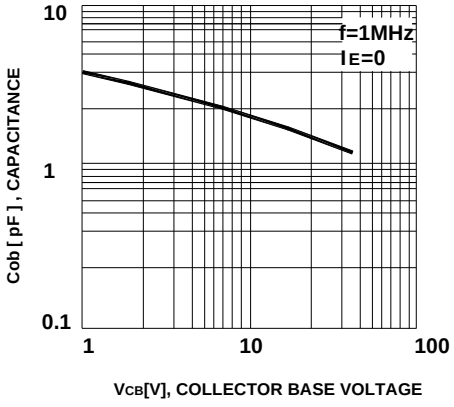

Figure 5. Collector Output Capacitance

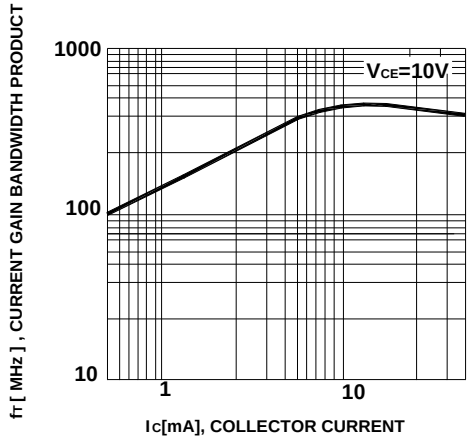

Figure 6. Current Gain Bandwidth Product