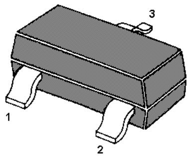
MMBTSC3879

NPN Silicon Epitaxial Planar Transistor

High frequency amplifier application
for HF,VHF band amplifier application

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℃)

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
Emitter Current	$-I_E$	50	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{Stg}	-55 to +150	℃

Characteristics at T_{amb} = 25℃

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
Transition Frequency at V_{CE} = 10 V, I_C = 1 mA	f_T	100	-	400	MHz
Collector Output Capacitance at V_{CB} = 10 V, f = 1 MHz	C_{ob}	-	-	3.2	pF

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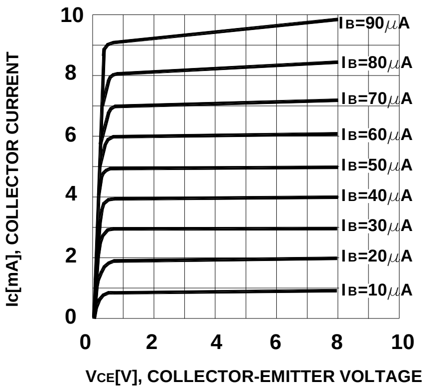

Figure 1. Static Characteristic

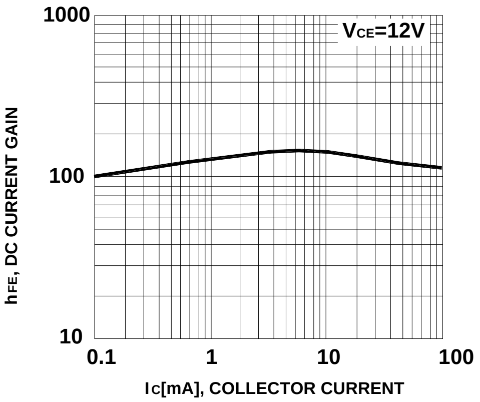

Figure 2. DC Current Gain

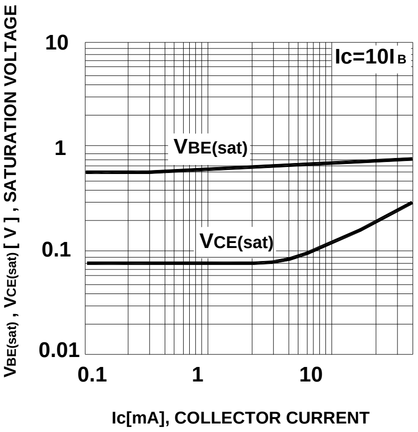

Figure 3. Base-Emitter Saturation Voltage
Collector-Emitter Satruation Voltage

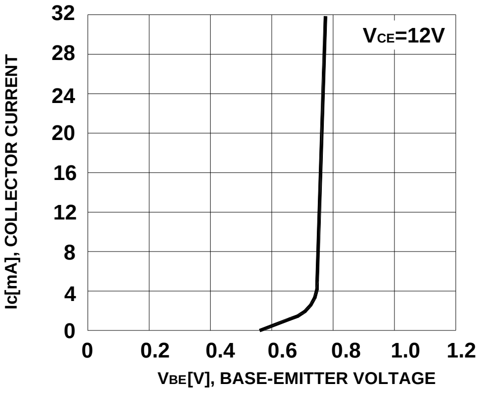

Figure 4. Base-Emitter On Voltage

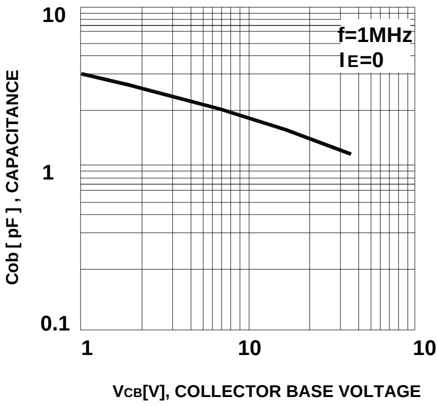

Figure 5. Collector Output Capacitance

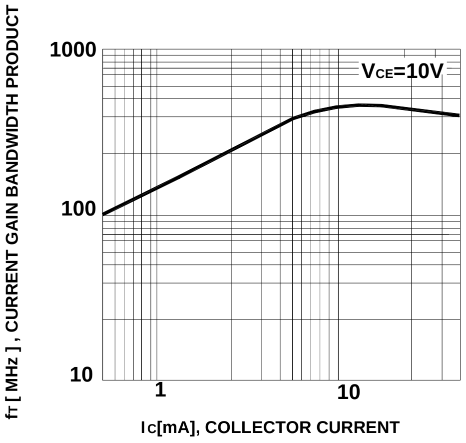

Figure 6. Current Gain Bandwidth Product