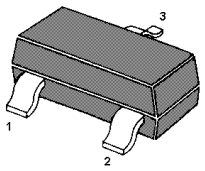
MMBTSC5345

NPN Silicon Epitaxial Planar Transistor
for RF amplifier.

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)

	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}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{Stg}	-55 +150	°C

Characteristics at T_{amb}=25 °C

		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V_{CE}=6V, I_C=1mA Current Gain Group	R O Y	h_{FE} h_{FE} h_{FE}	40 70 120	- - -	80 140 240	- - -
Collector Emitter Saturation Voltage at I_C=10mA, I_B=1mA		$V_{CE(sat)}$	-	-	0.3	V
Collector Cutoff Current at V_{CB}=30V		I_{CBO}	-	-	0.5	µA
Emitter Cutoff Current at V_{EB}=4V		I_{EBO}	-	-	0.5	µA
Collector Base Breakdown Voltage at I_C=10µA		$V_{(BR)CBO}$	30			V
Collector Emitter Breakdown Voltage at I_C=5mA		$V_{(BR)CEO}$	20	-	-	V
Emitter Base Breakdown Voltage at I_E=10µA		$V_{(BR)EBO}$	4	-	-	V
Transition Frequency at V_{CE}=6V, I_E=-1mA		f_T	-	550	-	MHz
Output Capacitance at V_{CB}=6V, f=1MHz		C_{OB}	-	1.4		pF

Electrical Characteristic Curves

Fig. 1 P_C-T_a

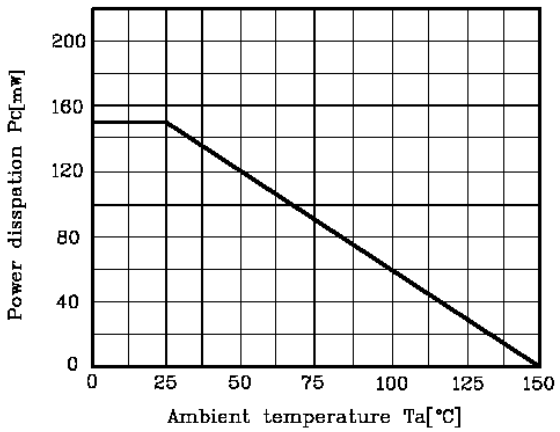


Fig. 2 I_C-V_{CE}

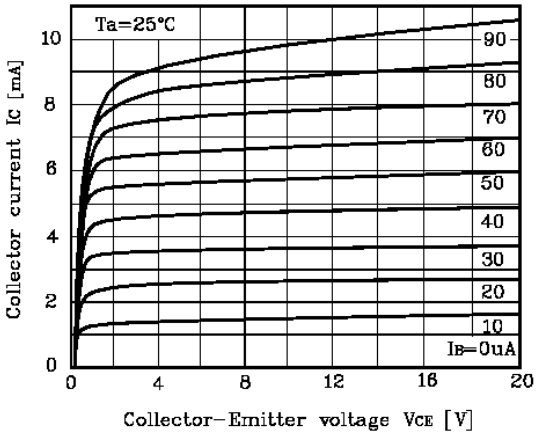


Fig. 3 h_{FE}-I_C

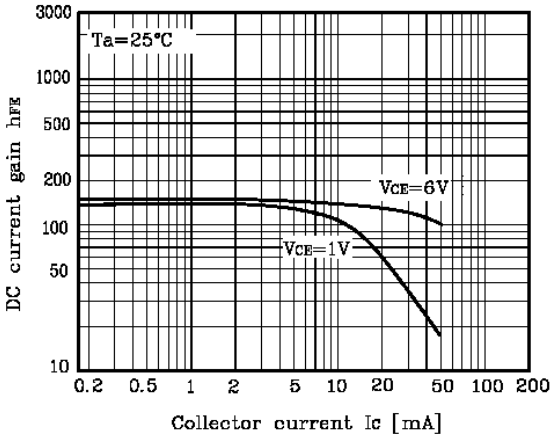


Fig. 4 f_T-I_E

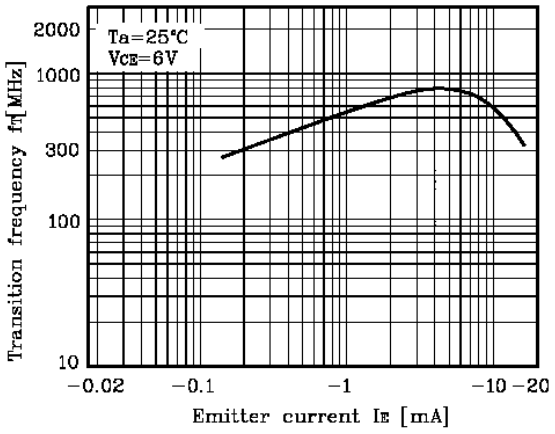


Fig. 5 C_{ob}-V_{CB}, C_{ib}-V_{EB}

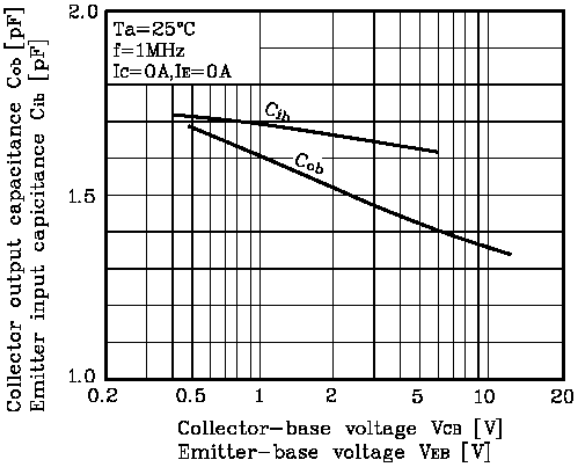
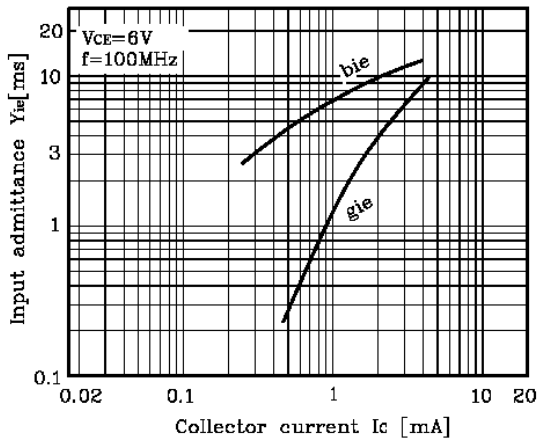


Fig. 6 Yie-I_C



Electrical Characteristic Curves

Fig. 7 I_C-Yoe

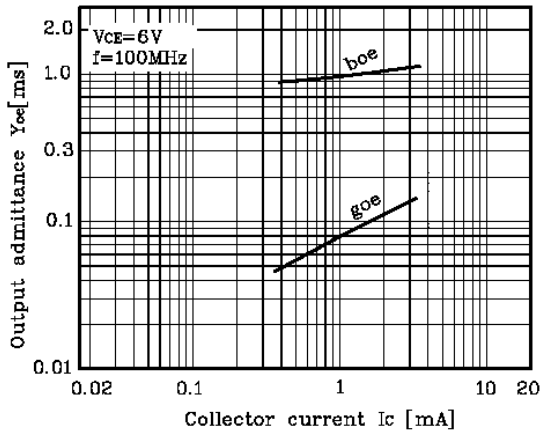


Fig. 8 I_C-Yfe

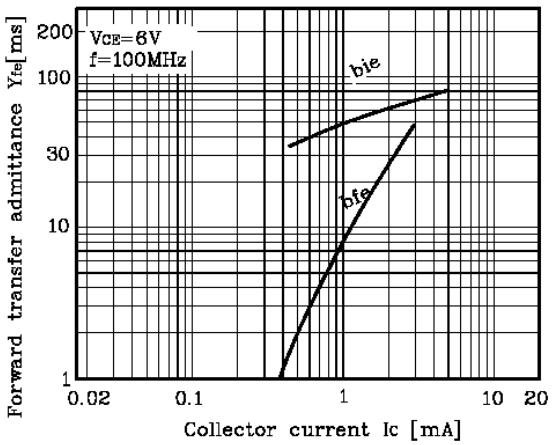


Fig. 9 I_C - Yre