



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

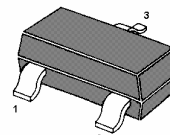
TEL: 852-2790 0314 FAX: 852-2790 0206

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.

SOT-23



1.BASE 2.EMITTER 3.COLLECTOR

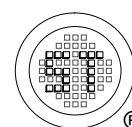
SOT-23 Plastic Package

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 _s	-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 h _{FE}	40	-	80	-
	O h _{FE}	70	-	140	-
	Y h _{FE}	120	-	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



Dated : 25/10/2005



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Electrical Characteristic Curves

Fig. 1 P_C-T_a

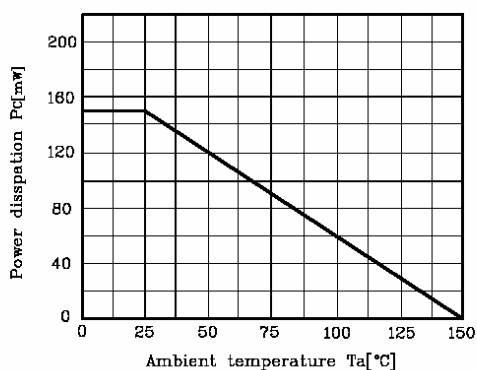


Fig. 2 I_C-V_{CE}

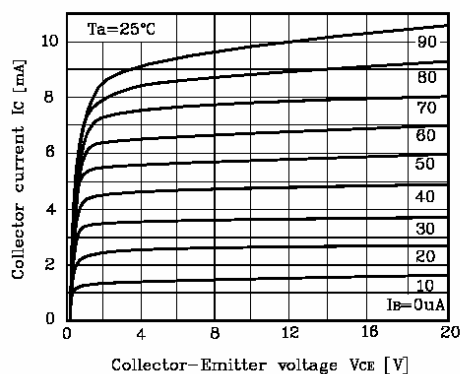


Fig. 3 $h_{FE}-I_C$

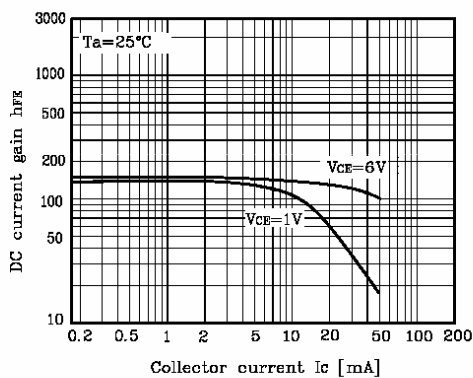


Fig. 4 f_T-I_E

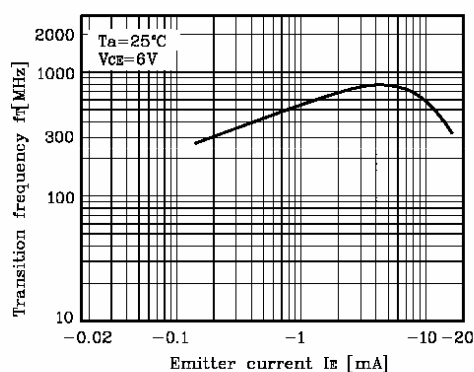


Fig. 5 $C_{ob}-V_{CB}, C_{ib}-V_{EB}$

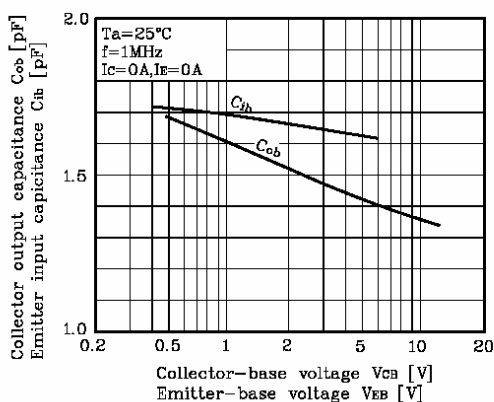
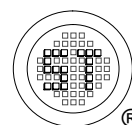
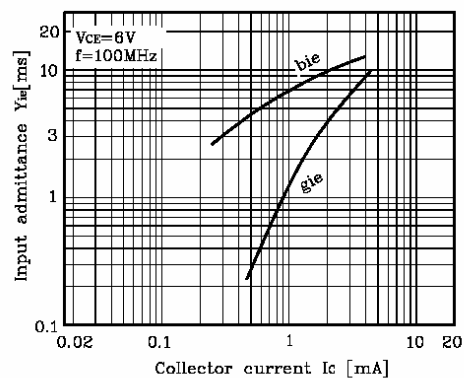


Fig. 6 $Y_{ie}-I_C$



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Electrical Characteristic Curves

Fig. 7 I_C - Y_{oe}

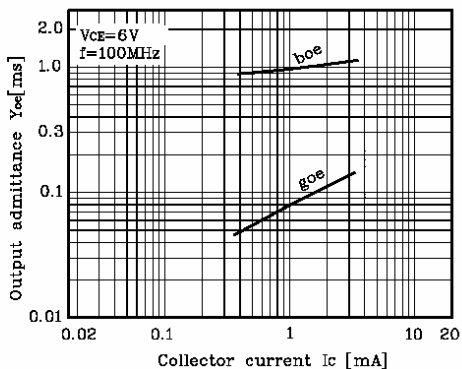


Fig. 8 I_C - Y_{fe}

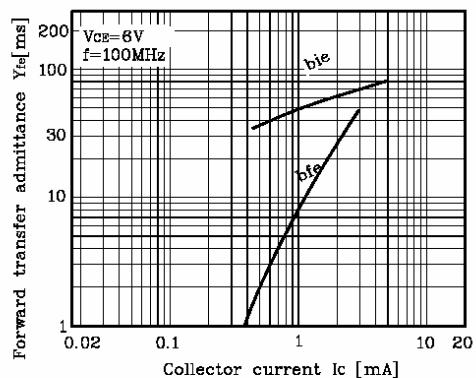
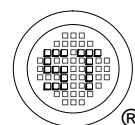
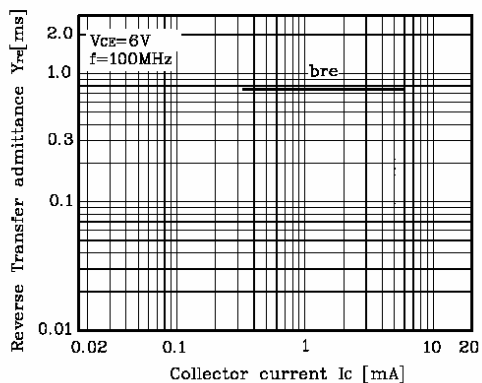


Fig. 9 I_C - Y_{re}



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