



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.

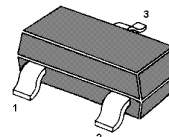
TEL: 852-2790 0314 FAX: 852-2790 0206

MMBTSC945

NPN Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into five groups R, O, Y, P and L, according to its DC current gain. As complementary type the PNP transistor MMBTSA733 is recommended.



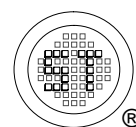
1.BASE 2.EMITTER 3.COLLECTOR
SOT-23 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V _{CBO}	60	V
Collector Emitter Voltage	V _{CEO}	50	V
Emitter Base Voltage	V _{EBO}	5	V
Collector Current	I _C	150	mA
Power Dissipation	P _{tot}	200	mW
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _S	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at V _{CE} = 6 V, I _C = 1 mA Current Gain Group	R	h _{FE}	40	-	80	-
	O	h _{FE}	70	-	140	-
	Y	h _{FE}	120	-	240	-
	P	h _{FE}	200	-	400	-
	L	h _{FE}	350	-	700	-
Collector Base Cutoff Current at V _{CB} = 40 V	I _{CBO}	-	-	0.1	μA	
Emitter Base Cutoff Current at V _{EB} = 3 V	I _{EBO}	-	-	0.1	μA	
Collector Base Breakdown Voltage at I _C = 100 μA	V _{(BR)CBO}	60	-	-	V	
Collector Emitter Breakdown Voltage at I _C = 10 mA	V _{(BR)CEO}	50	-	-	V	
Emitter Base Breakdown Voltage at I _E = 10 μA	V _{(BR)EBO}	5	-	-	V	
Collector Emitter Saturation Voltage at I _C = 100 mA, I _B = 10 mA	V _{CE(sat)}	-	-	0.3	V	
Gain Bandwidth Product at V _{CE} = 6 V, I _C = 10 mA	f _T	-	300	-	MHz	
Output Capacitance at V _{CB} = 6 V, f = 1 MHz	C _{OB}	-	2.5	-	pF	



Dated : 10/12/2007



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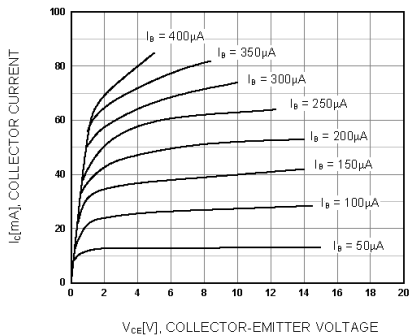


Figure 1. Static Characteristic

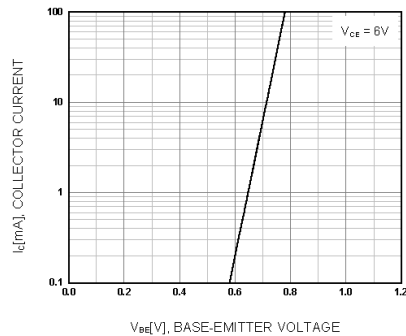


Figure 2. Transfer Characteristic

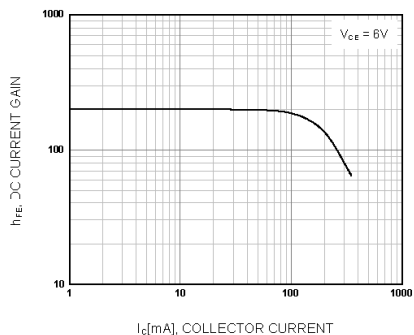


Figure 3. DC current Gain

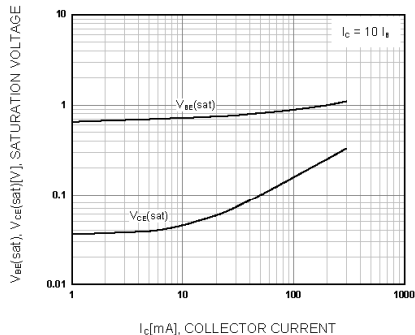


Figure 4. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

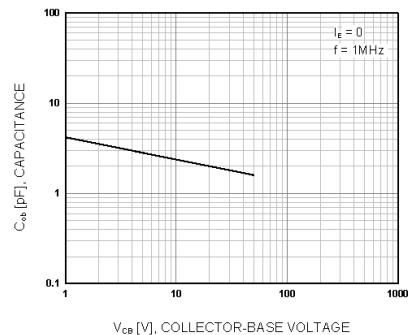


Figure 5. Output Capacitance

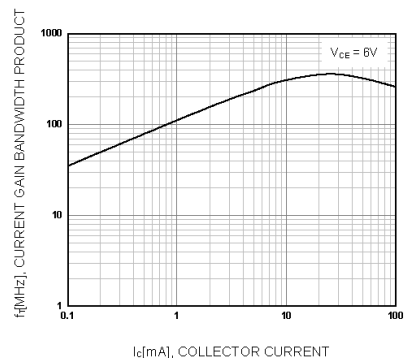


Figure 6. Current Gain Bandwidth Product

