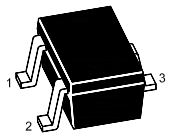
MMBTSC5343W

NPN Silicon Epitaxial Planar Transistor

for general small signal amplifier applications.

The transistor is subdivided into four groups, O, Y, G and L, according to its DC current gain.



1.Base 2.Emitter 3.Collector
SOT-323 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_{stg}	- 55 + 150	°C

Characteristics at T_{amb} = 25 °C

Parameter		Symbol	Min.	Max.	Unit
DC Current Gain at V_{CE} = 6 V, I_C = 2 mA	Current Gain Group O	h_{FE}	70	140	-
	Y	h_{FE}	120	240	-
	G	h_{FE}	200	400	-
	L	h_{FE}	300	700	-
Collector Base Cutoff Current at V_{CB} = 60 V		I_{CBO}	-	100	nA
Emitter Base Cutoff Current at V_{EB} = 5 V		I_{EBO}	-	100	nA
Collector Base Breakdown Voltage at I_C = 100 µA		$V_{(BR)CBO}$	60	-	V
Collector Emitter Breakdown Voltage at I_C = 1 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		$V_{CE(sat)}$	-	0.25	V
Transition Frequency at V_{CE} = 10 V, I_C = 1 mA		f_T	80	-	MHz
Collector Output Capacitance at V_{CB} = 10 V, f = 1 MHz		C_{ob}	-	3.5	pF

Fig. 1 P_C –T_a

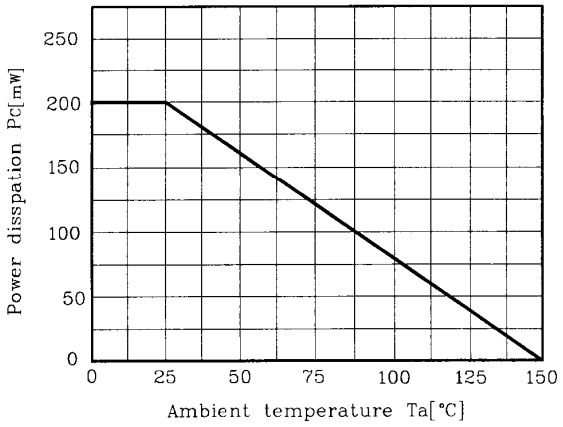


Fig. 2 I_C -V_{BE}

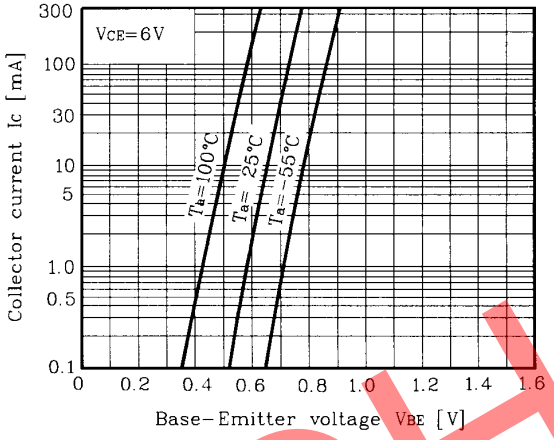


Fig. 3 I_C -V_{CE}

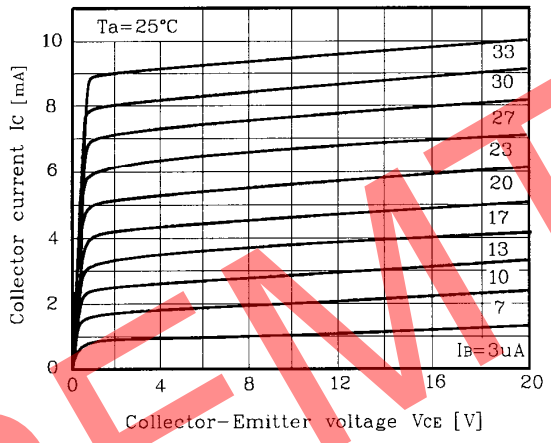


Fig. 4 h_{FE} -I_C

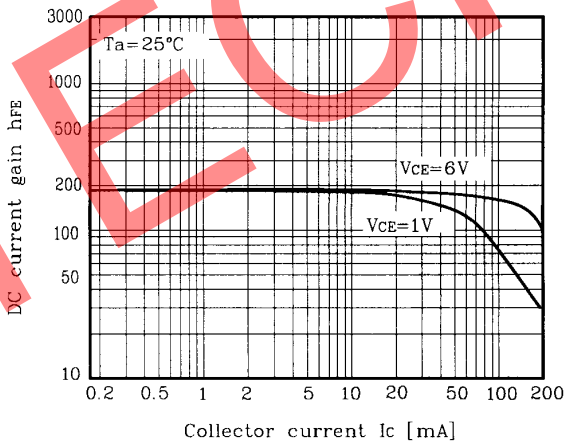


Fig. 5 $V_{CE(sat)}$ -I_C