

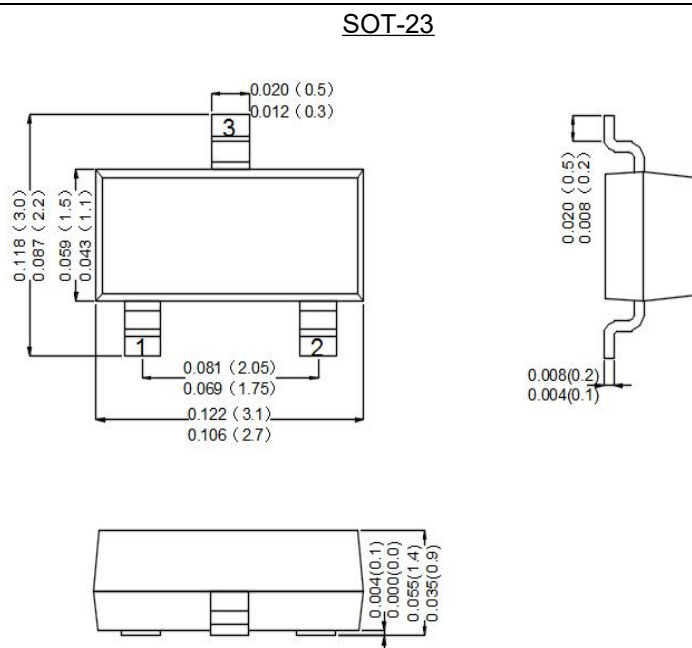


### Features

- 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 NPN transistor MMBTSC945 is recommended.

### Mechanical Data

- Case: Molded Plastic, SOT-23
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Plated Leads Solderable per MIL-STD-750, Method-2026.
- Marking: marked on body
- Mounting Position : Any.
- Equivalent Circuit:



Dimensions in inches and (millimeters)

### Maximum Ratings Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified.)

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

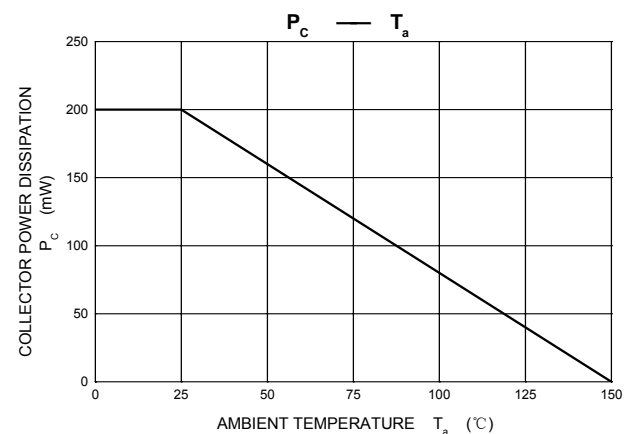
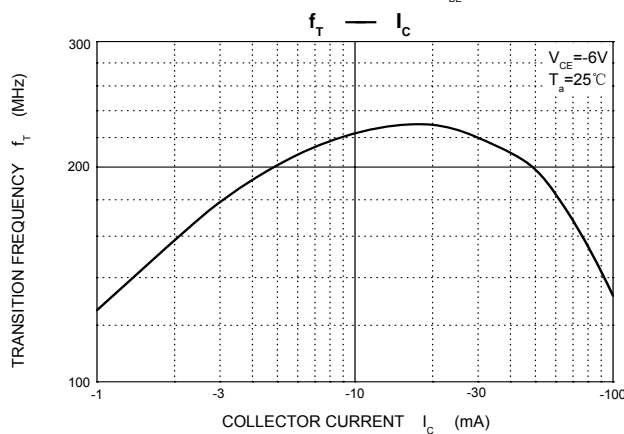
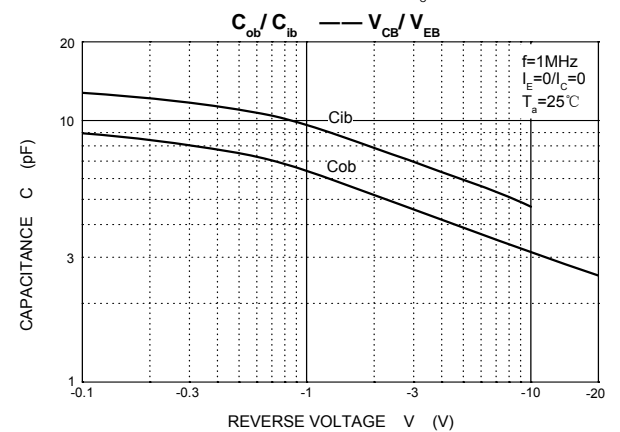
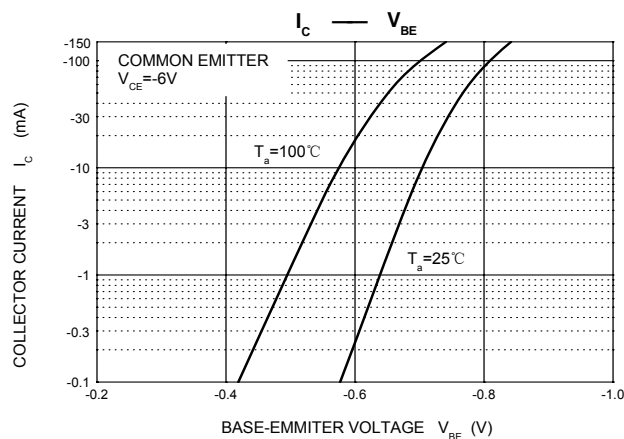
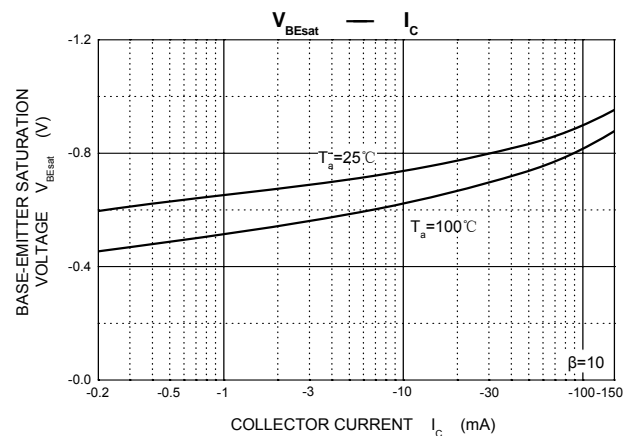
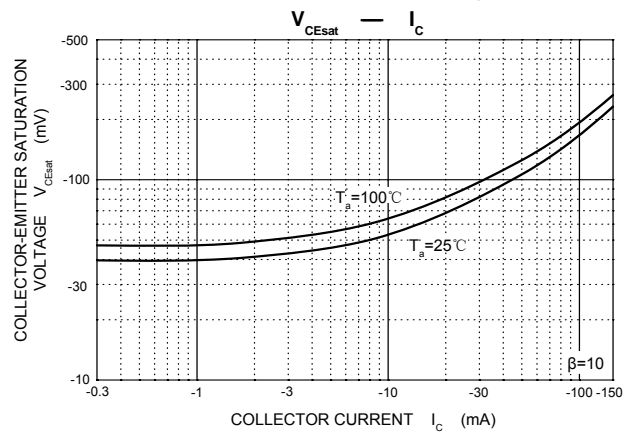
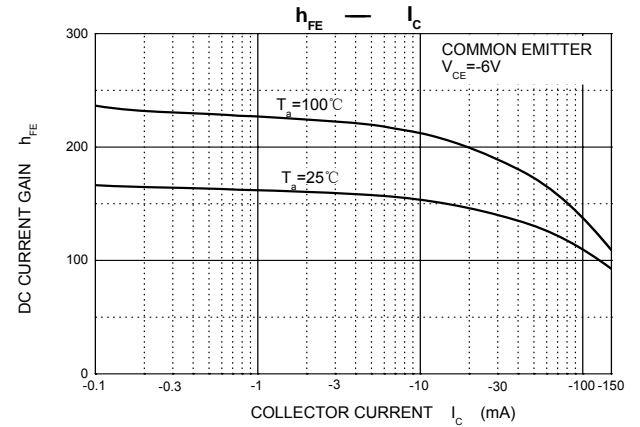
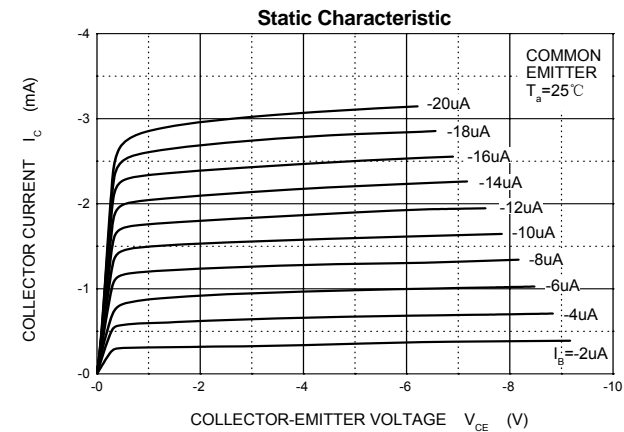


### Electrical Characteristics (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at -V <sub>CE</sub> =6V, -I <sub>C</sub> =1mA						
Current Gain Group	R	h <sub>FE</sub>	40	-	80	-
	O	h <sub>FE</sub>	70	-	140	-
	Y	h <sub>FE</sub>	120	-	240	-
	P	h <sub>FE</sub>	200	-	400	-
	L	h <sub>FE</sub>	350	-	700	-
Collector Base Breakdown Voltage at -I <sub>C</sub> =100μA		-V <sub>(BR)CBO</sub>	60	-	-	V
Collector Emitter Breakdown Voltage at -I <sub>C</sub> =10mA		-V <sub>(BR)CEO</sub>	50	-	-	V
Emitter Base Breakdown Voltage at -I <sub>E</sub> =10μA		-V <sub>(BR)EBO</sub>	5	-	-	V
Collector Cutoff Current at -V <sub>CB</sub> =60V		-I <sub>CBO</sub>	-	-	0.1	μA
Emitter Cutoff Current at -V <sub>EB</sub> =5V		-I <sub>EBO</sub>	-	-	0.1	μA
Collector Saturation Voltage at -I <sub>C</sub> =100mA, -I <sub>B</sub> =10mA		-V <sub>CE(sat)</sub>	-	-	0.3	V
Base Emitter Voltage at -V <sub>CE</sub> =6V, -I <sub>C</sub> =1mA		-V <sub>BE(on)</sub>	0.5	-	0.8	V
Gain Bandwidth Product at -V <sub>CE</sub> =6V, -I <sub>C</sub> =10mA		f <sub>T</sub>	50	180	-	MHz
Output Capacitance at -V <sub>CB</sub> =10V, f=1MHz		C <sub>OB</sub>	-	2.8	-	pF
Noise Figure at -V <sub>CE</sub> =6V, -I <sub>C</sub> =0.3mA, f=100Hz, R <sub>S</sub> =10KΩ		F	-	6	20	dB



### Rating And Characteristic Curves





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