



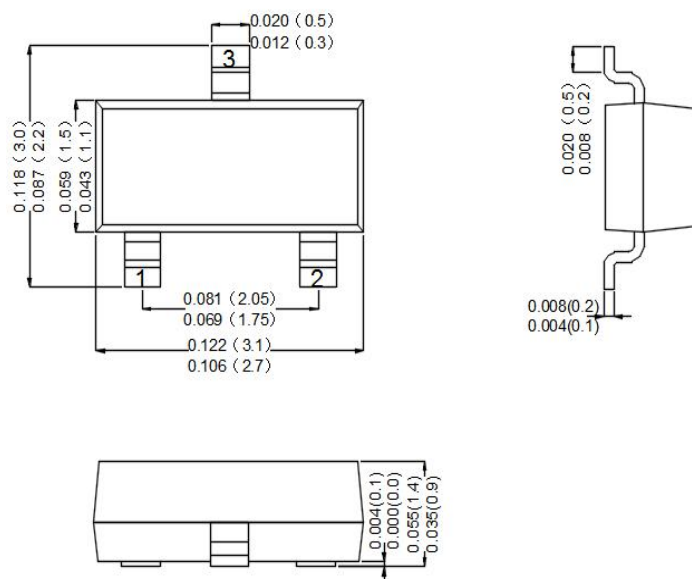
Features

- for audio frequency, general purpose amplifier.
- The transistor is subdivided into four groups O, Y, G and L, according to its DC current gain.

SOT-23

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: CLASSIFICATION OF hFE
- 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	$-I_C$	100	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_s	-55 to +150	°C

CLASSIFICATION OF hFE

Rank	O	Y	G	L
Range	90-180	135-270	200-400	300-600
Marking	MO	MY	MG	ML



MMBTSA812

PNP Silicon Epitaxial Planar Transistor

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

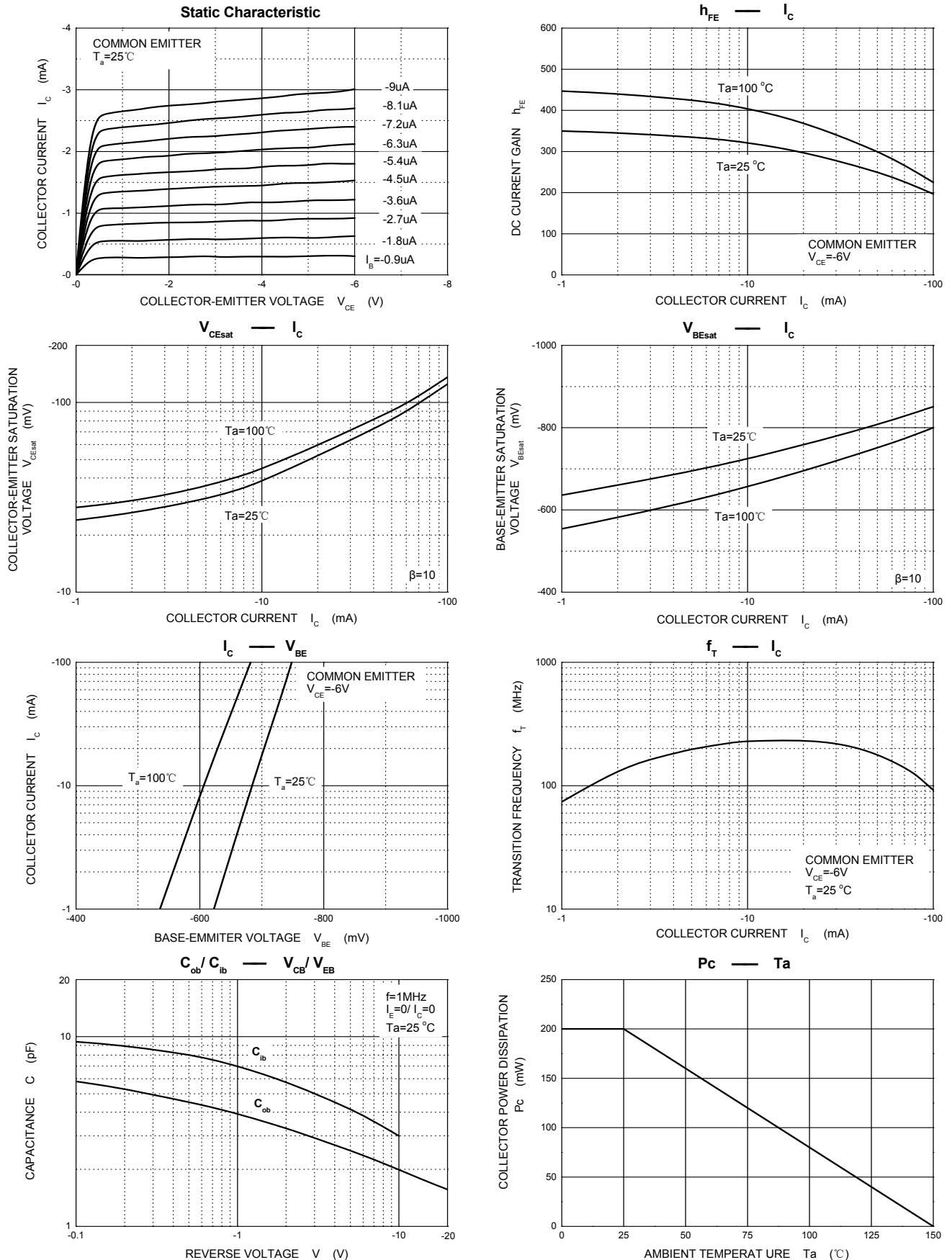
Parameter	Symbol	est conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB} = -60V, I_E = 0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	μA
DC current gain	h_{FE}	$V_{CE} = -6V, I_C = -1mA$	90		600	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100mA, I_B = -10mA$			-0.3	V
Base-emitter voltage	V_{BE}	$I_C = -1mA, V_{CE} = -6V$	-0.58		-0.68	V
Transition frequency	f_T	$V_{CE} = -6V, I_C = -10mA$		180		MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		4.5		pF

CLASSIFICATION OF h_{FE}

Rank	O	Y	G	L
Range	90-180	135-270	200-400	300-600
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Rating And Characteristic Curves





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