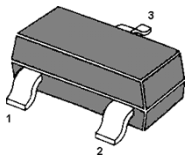
MMBTSB815 PNP Silicon Epitaxial Planar Transistor

for general purpose AF amplifier



1.Base 2.Emitter 3.Collector
SOT-23 Plastic Package

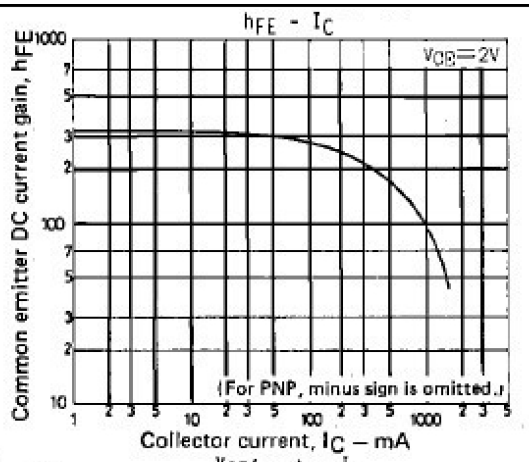
Absolute Maximum Ratings (T_a = 25 °C)

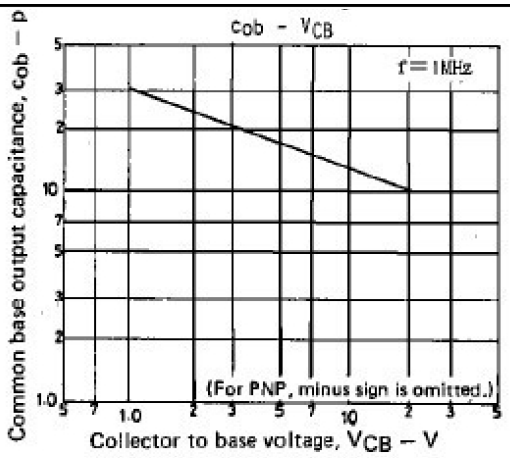
Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	20	V
Collector Emitter Voltage	$-V_{CEO}$	15	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	700	mA
Collector Current (Pulse)	$-I_{CP}$	1.5	A
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	- 55 to + 150	°C

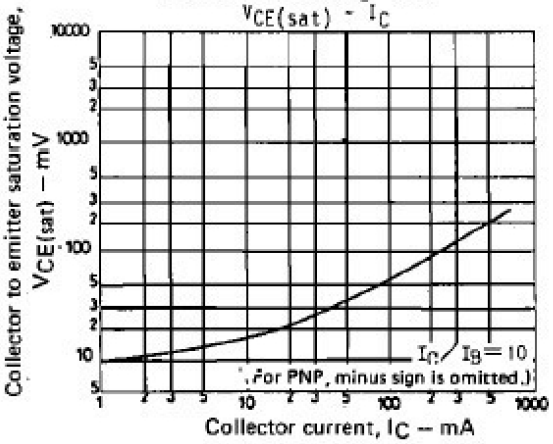
Characteristics at T_a = 25 °C

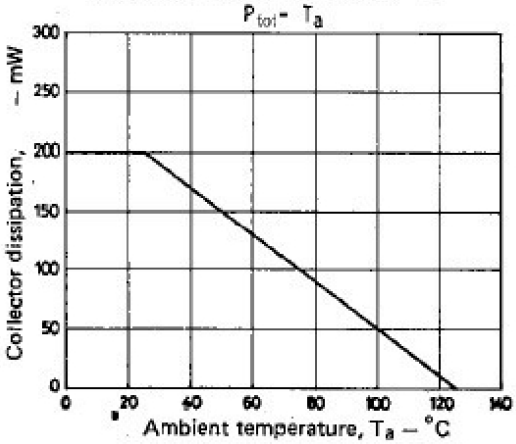
Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE}$ = 2 V, $-I_C$ = 50 mA at $-V_{CE}$ = 2 V, $-I_C$ = 500 mA	 h_{FE} h_{FE}	 200 80	 - -	 400 -	 - -
Collector Cutoff Current at $-V_{CB}$ = 15 V	$-I_{CBO}$	-	-	100	nA
Emitter Cutoff Current at $-V_{EB}$ = 4 V	$-I_{EBO}$	-	-	100	nA
Collector Base Breakdown Voltage at $-I_C$ = 10 µA	$-V_{(BR)CBO}$	20	-	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 100 µA	$-V_{(BR)CEO}$	15	-	-	V
Emitter Base Breakdown Voltage at $-I_E$ = 10 µA	$-V_{(BR)EBO}$	5	-	-	V
Collector Emitter Saturation Voltage at $-I_C$ = 5 mA, $-I_B$ = 0.5 mA	$-V_{CE(sat)}$	-	-	35	mV
Collector Emitter Saturation Voltage at $-I_C$ = 100 mA, $-I_B$ = 10 mA	$-V_{CE(sat)}$	-	-	120	mV
Transition Frequency at $-V_{CE}$ = 10 V, $-I_C$ = 50 mA	f_T	-	250	-	MHz
Output Capacitance at $-V_{CB}$ = 10 V, f = 1 MHz	C_{ob}	-	13	-	pF

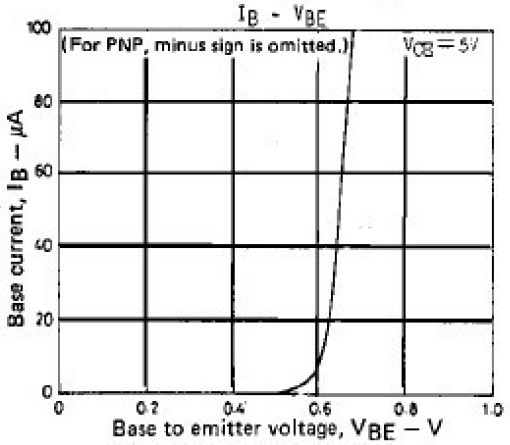
Typical Characteristics

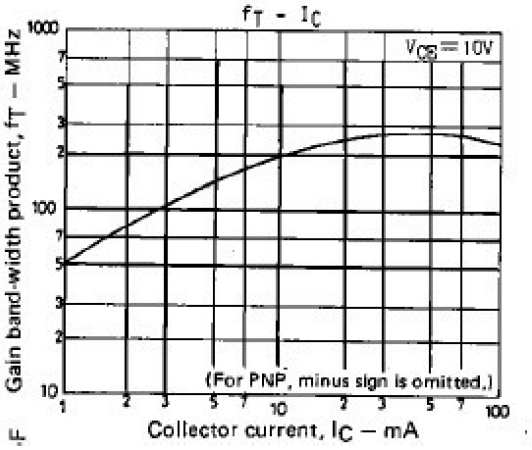


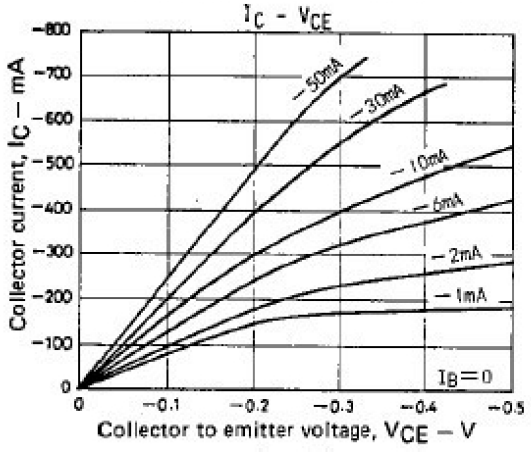






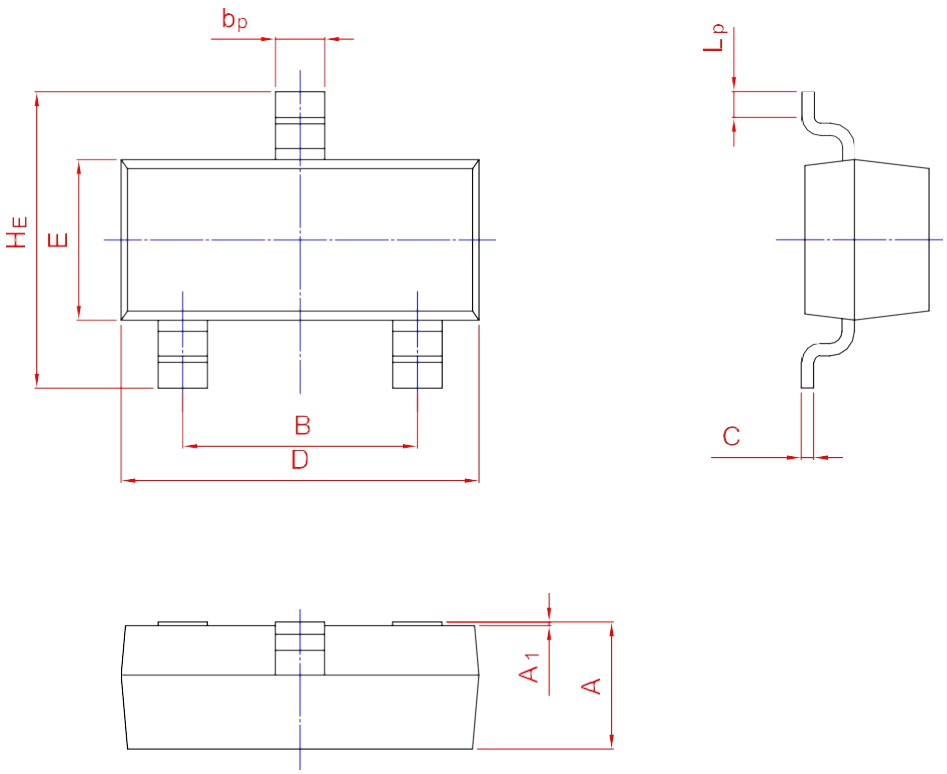






PACKAGE OUTLINE

Plastic surface mounted package; 3 leads **SOT-23**



	A	B	bp	C	D	E	HE	A1	Lp
mm UNIT	0.95	2.04 1.78	0.50 0.35	0.19 0.08	2.70		3.00 2.20	0.100 0.013	0.50 0.20
	1.40				3.10	1.65 1.20			