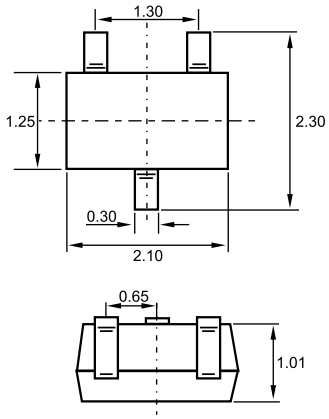
BC856AW,BW
BC857AW,BW,CW
BC858AW,BW,CW

SOT-323 Bipolar Transistor(PNP)

1. BASE
2. EMITTER
3. COLLECTOR

SOT-323



Dimensions in inches and (millimeters)

Features

- ✧ Ideally suited for automatic insertion
- ✧ For Switching and AF Amplifier Applications

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage		V
	BC856W	-80	
	BC857W	-50	
	BC858W	-30	
V_{CEO}	Collector-Emitter Voltage		V
	BC856W	-65	
	BC857W	-45	
	BC858W	-30	
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current –Continuous	-0.1	A
P_{C*}	Collector Power Dissipation	150	mW
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65-150	℃

DEVICE MARKING

BC856AW=3A; BC856BW=3B;
BC857AW=3E;BC857BW=3F;BC857CW=3G;
BC858AW=3J; BC858BW=3K; BC858CW=3L

BC856AW,BW
BC857AW,BW,CW
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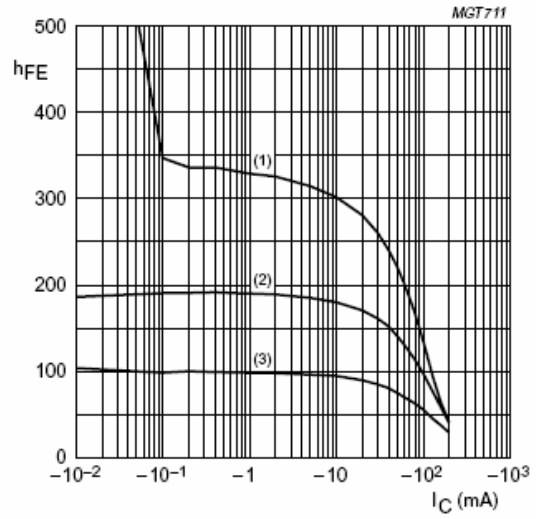
ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

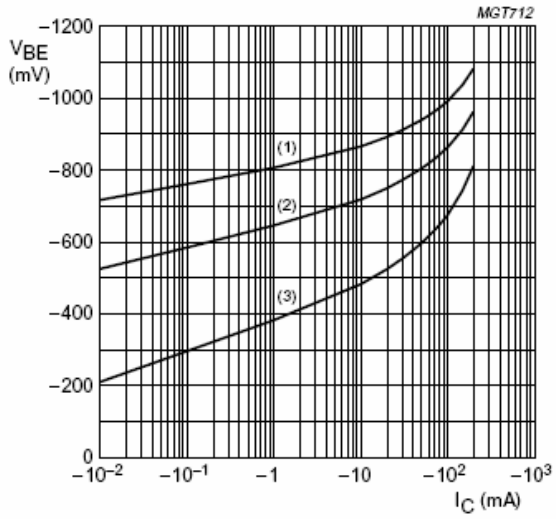
Parameter		Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	**BC856W**	V_{CBO}	I_C= -10μA, I_E=0	-80		V
	BC857W			-50		
	BC858W			-30		
Collector-emitter breakdown voltage	**BC856W**	V_{CEO}	I_C= -10mA, I_B=0	-65		V
	BC857W			-45		
	BC858W			-30		
Emitter-base breakdown voltage		V_{EBO}	I_E= -1μA, I_C=0	-5		V
Collector cut-off current		I_{CBO}	V_{CB}= -30 V , I_E=0		-15	nA
DC current gain	**BC856AW, 857AW,858AW**	h_{FE}	V_{CE}= -5V, I_C= -2mA	125	250	
	BC856BW, 857BW,858BW			220	475	
	BC857CW,BC858CW			420	800	
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C=-100mA, I_B= -5mA		-0.65	V
Base-emitter saturation voltage		$V_{BE(sat)}$	I_C= -100mA, I_B= -5mA		-1.1	V
Transition frequency		f_T	V_{CE}= -5V, I_C= -10mA f=100MHz	100		MHz
Collector capacitance		C_{ob}	V_{CB}=-10V, f=1MHz		4.5	pF

Typical Characteristics



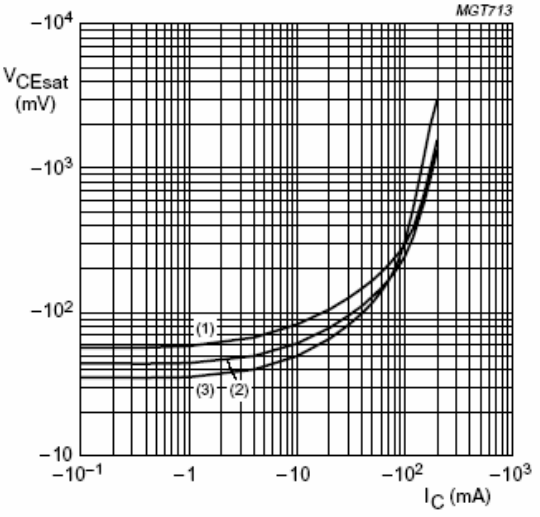
BC857AW; V_{CE} = −5 V.
(1) T_{amb} = 150 °C.
(2) T_{amb} = 25 °C.
(3) T_{amb} = −55 °C.

Fig.2 DC current gain as a function of collector current; typical values.



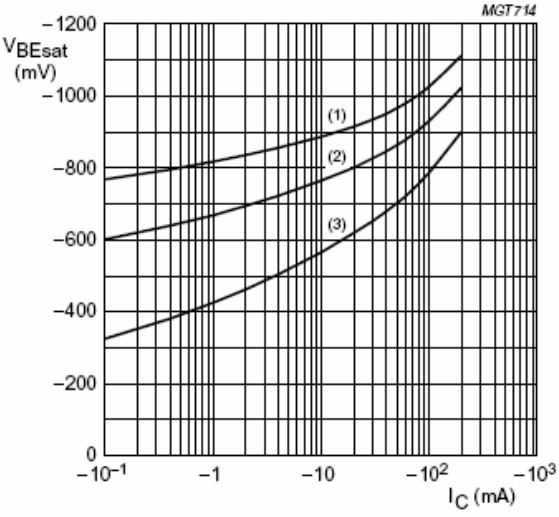
BC857AW; V_{CE} = −5 V.
(1) T_{amb} = −55 °C.
(2) T_{amb} = 25 °C.
(3) T_{amb} = 150 °C.

Fig.3 Base-emitter voltage as a function of collector current; typical values.



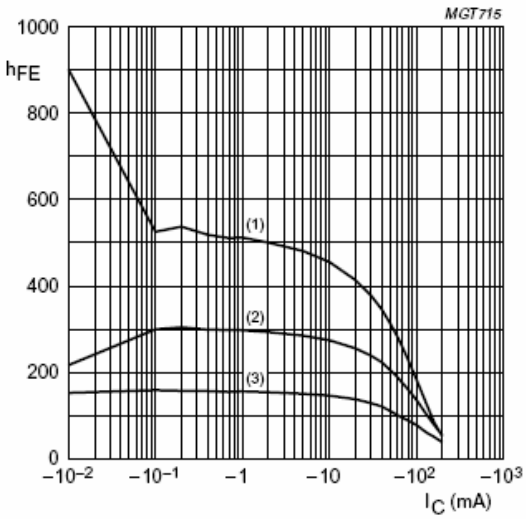
BC857AW; I_C/I_B = 20.
(1) T_{amb} = 150 °C.
(2) T_{amb} = 25 °C.
(3) T_{amb} = −55 °C.

Fig.4 Collector-emitter saturation voltage as a function of collector current; typical values.



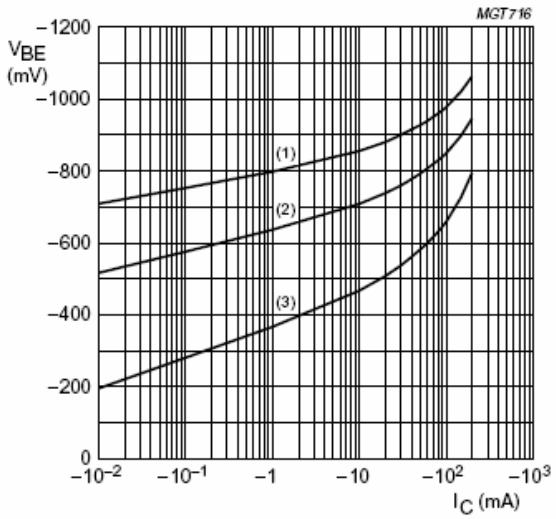
BC857AW; I_C/I_B = 20.
(1) T_{amb} = −55 °C.
(2) T_{amb} = 25 °C.
(3) T_{amb} = 150 °C.

Fig.5 Base-emitter saturation voltage as a function of collector current; typical values.



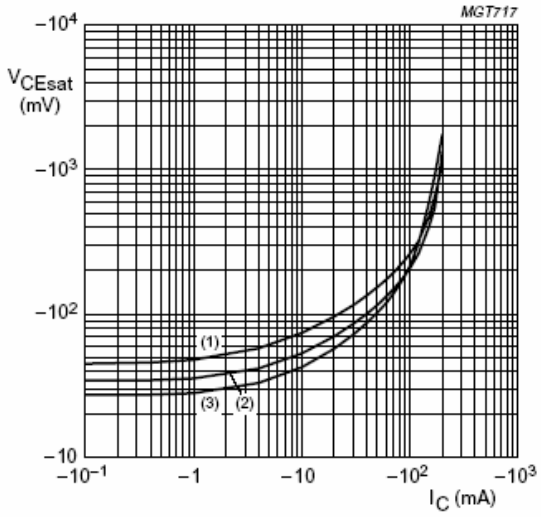
BC857BW; V_{CE} = −5 V.
(1) T_{amb} = 150 °C.
(2) T_{amb} = 25 °C.
(3) T_{amb} = −55 °C.

Fig.6 DC current gain as a function of collector current; typical values.



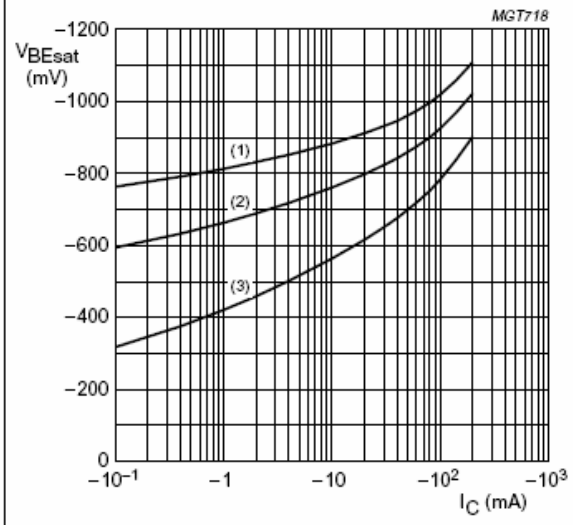
BC857BW; V_{CE} = −5 V.
(1) T_{amb} = −55 °C.
(2) T_{amb} = 25 °C.
(3) T_{amb} = 150 °C.

Fig.7 Base-emitter voltage as a function of collector current; typical values.



BC857BW; I_C/I_B = 20.
(1) T_{amb} = 150 °C.
(2) T_{amb} = 25 °C.
(3) T_{amb} = −55 °C.

Fig.8 Collector-emitter saturation voltage as a function of collector current; typical values.



BC857BW; I_C/I_B = 20.
(1) T_{amb} = −55 °C.
(2) T_{amb} = 25 °C.
(3) T_{amb} = 150 °C.

Fig.9 Base-emitter saturation voltage as a function of collector current; typical values.

BC856AW,BW
BC857AW,BW,CW
BC858AW,BW,CW

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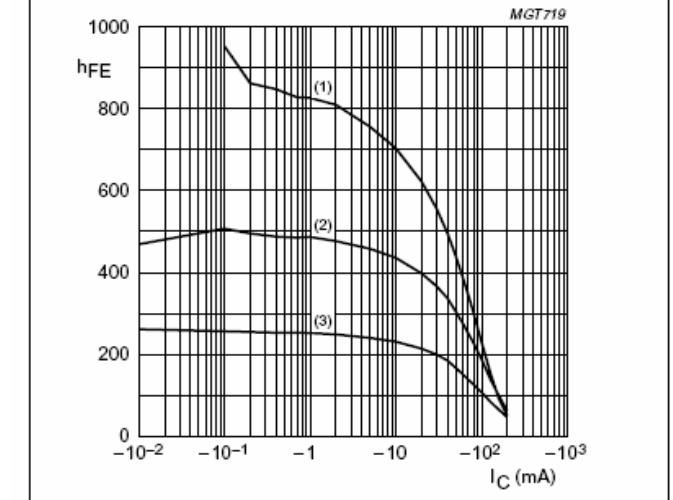
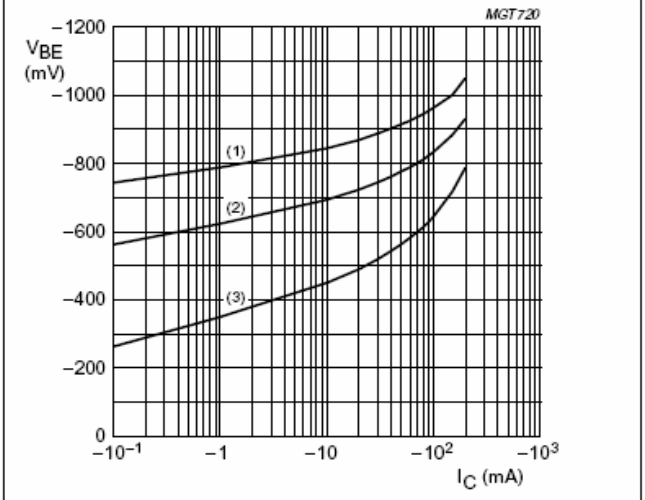


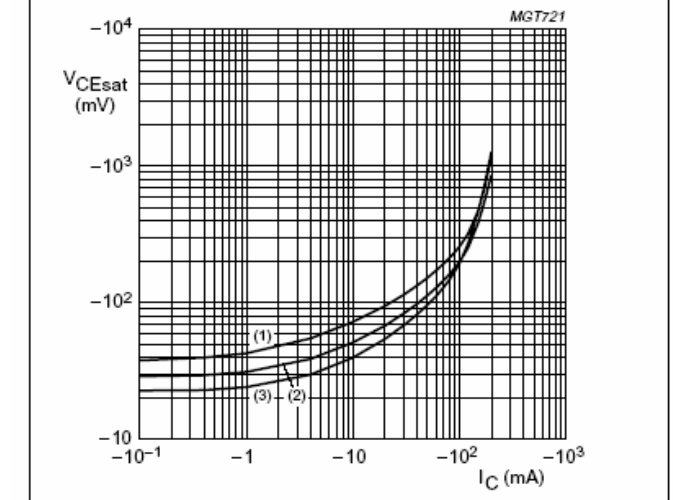
BC857CW; V_{CE} = −5 V.
(1) T_{amb} = 150 °C.
(2) T_{amb} = 25 °C.
(3) T_{amb} = −55 °C.

Fig.10 DC current gain as a function of collector current; typical values.



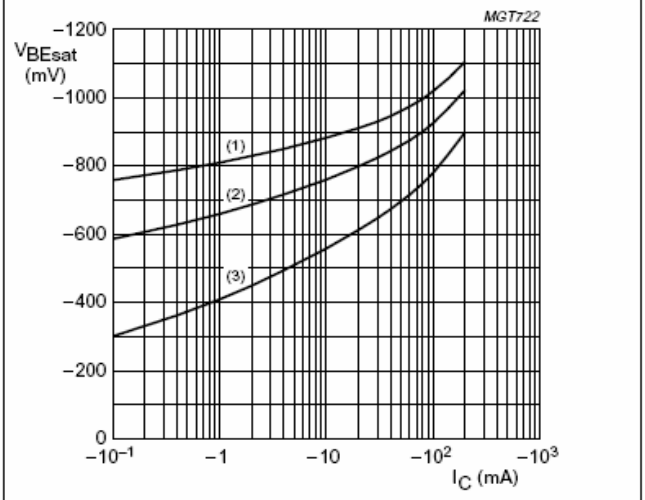
BC857CW; V_{CE} = −5 V.
(1) T_{amb} = −55 °C.
(2) T_{amb} = 25 °C.
(3) T_{amb} = 150 °C.

Fig.11 Base-emitter voltage as a function of collector current; typical values.



BC857CW; I_C/I_B = 20.
(1) T_{amb} = 150 °C.
(2) T_{amb} = 25 °C.
(3) T_{amb} = −55 °C.

Fig.12 Collector-emitter saturation voltage as a function of collector current; typical values.



BC857CW; I_C/I_B = 20.
(1) T_{amb} = −55 °C.
(2) T_{amb} = 25 °C.
(3) T_{amb} = 150 °C.

Fig.13 Base-emitter saturation voltage as a function of collector current; typical values.

Package	Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)
SOT -323	3000pcs	7inch	45,000pcs	203×203×195	180,000pcs	438×438×220