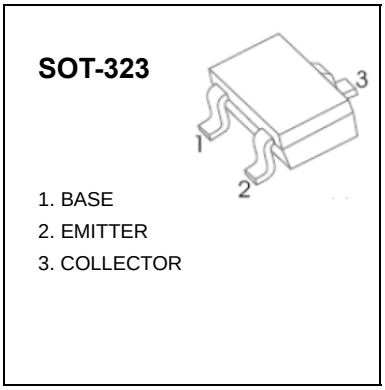
JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO.,LTD

SOT-323 Plastic-Encapsulate Transistors

BC846W
BC847W
BC848W

TRANSISTOR (NPN)



FEATURES

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

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

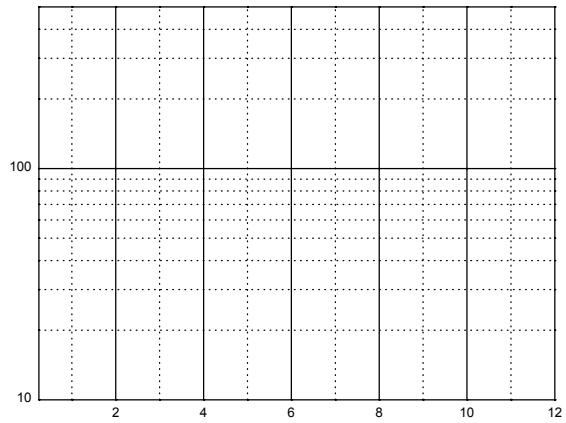
Symbol	Parameter		Value	Unit
V_{CBO}	Collector-Base Voltage	BC846W	80	V
		BC847W	50	
		BC848W	30	
V_{CEO}	Collector-Emitter Voltage	BC846W	65	V
		BC847W	45	
		BC848W	30	
V_{EBO}	Emitter-Base Voltage	BC846W	6	V
		BC847W	6	
		BC848W	5	
I_C	Collector Current –Continuous		0.1	A
P_C	Collector Power Dissipation		150	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient		833	℃/W
T_J	Junction Temperature		150	℃
T_{stg}	Storage Temperature		-55-150	℃

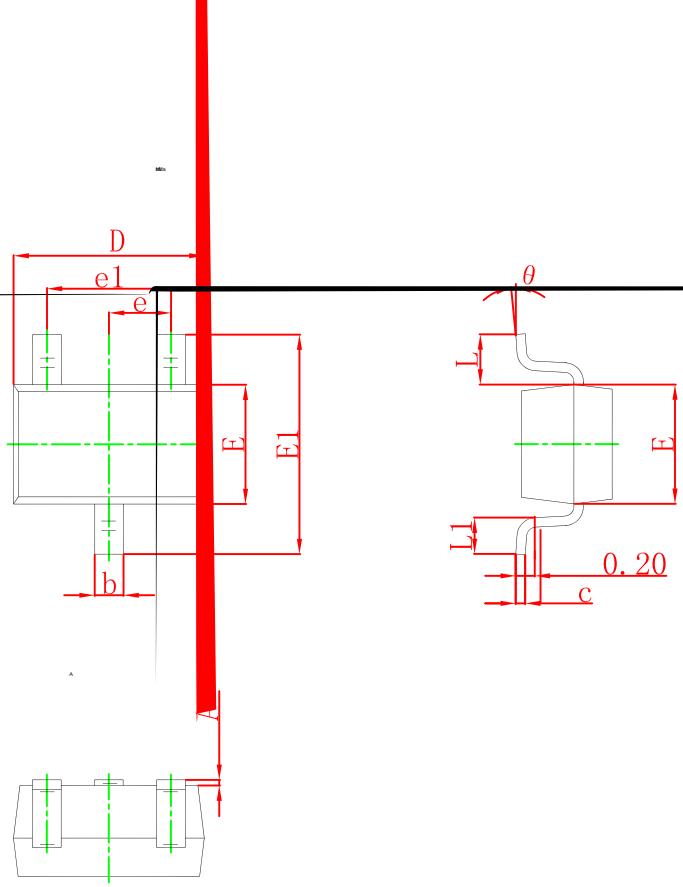
DEVICE MARKING

BC846AW=1A; BC846BW=1B;
BC847AW=1E; BC847BW=1F; BC847CW=1G;
BC848AW=1J; BC848BW=1K: BC848CW=1L

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter		Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	**BC846W**	V_{CBO}	I_C= 10μA, I_E=0	80			V
	BC847W			50			
	BC848W			30			
Collector-emitter breakdown voltage	**BC846W**	V_{CEO}	I_C= 10mA, I_B=0	65			V
	BC847W			45			
	BC848W			30			
Emitter-base breakdown voltage	**BC846W**	V_{EBO}	I_E= 1 μA, I_C=0	6			V
	BC847W			6			
	BC848W			5			
Collector Cutoff Current		I_{CBO}	V_{CB}=30V			15	nA
DC current gain	**BC846AW,847AW,848AW**	h_{FE}	V_{CE}= 5V, I_C= 10μA		90		
	BC846BW,847BW,848BW				150		
	BC847CW,BC848CW				270		
	BC846AW,847AW,848AW		V_{CE}= 5V, I_C= 2mA	110		220	
	BC846BW,847BW,848BW			200		450	
	BC847CW,BC848CW			420		800	
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C=10mA, I_B=0. 5mA			0.25	V
			I_C=100mA, I_B= 5mA			0.6	
Base-emitter saturation voltage		$V_{BE(sat)}$	I_C=10mA, I_B=0. 5mA		0.7		V
			I_C=100mA, I_B= 5mA		0.9		
Base-emitter voltage		$V_{BE(on)}$	V_{CE}= 5V, I_C= 2mA	580	660	700	mV
			V_{CE}= 5V, I_C= 10mA			770	
Transition frequency		f_T	V_{CE}= 5 V, I_C= 10mA f=100MHz	100			MHz
Collector output capacitance		C_{ob}	V_{CB}=10V,f=1MHz			4.5	pF
Noise figure	**BC846AW,847AW,848AW**	NF	V_{CE}=5V,I_c=0.2mA, f=1KHz,R_S=2KΩ BW=200Hz			10	dB
	BC846BW,847BW,848BW					10	
	BC847CW,BC848CW					4	


100
10
2
4
6
8
10
12



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