

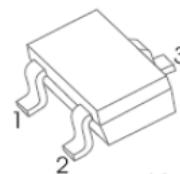
BC846W

BC847W

BC848W

TRANSISTOR (NPN)

SOT-323



- 1. BASE
- 2. EMITTER
- 3. COLLECTOR

FEATURES

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

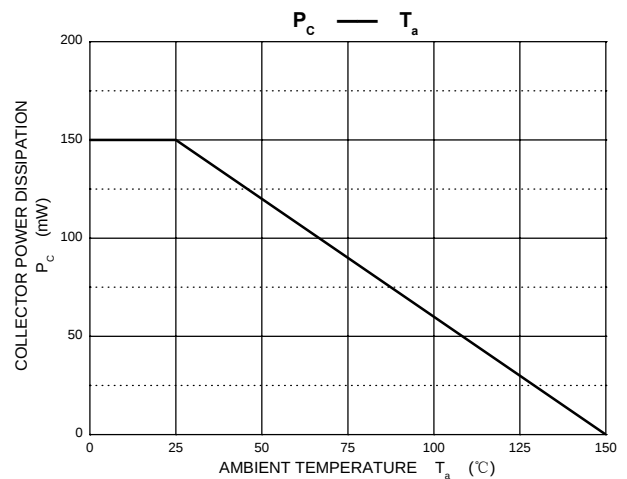
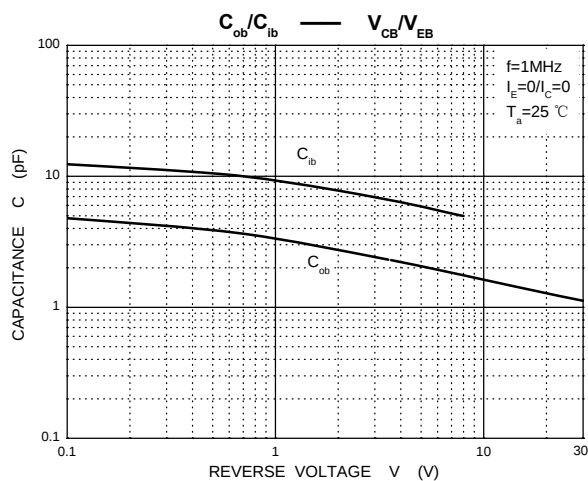
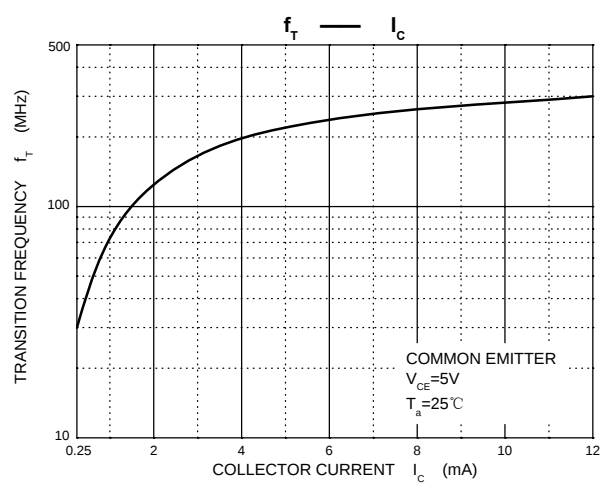
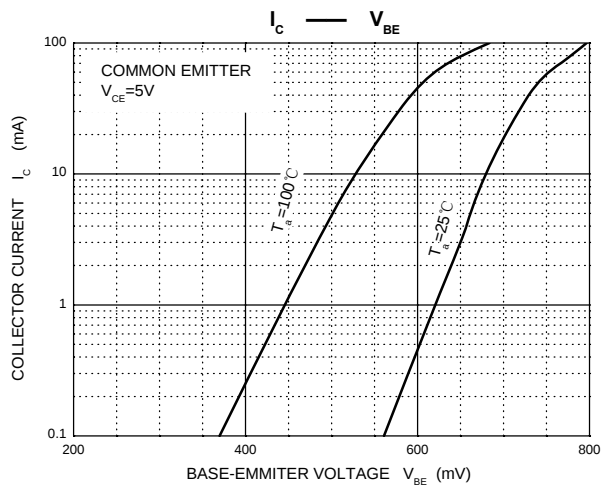
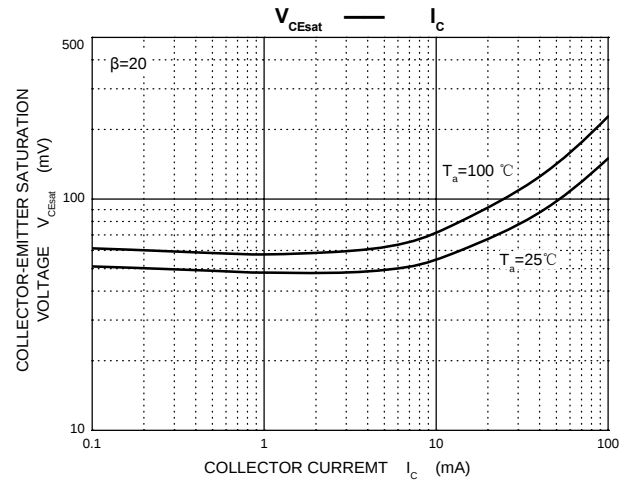
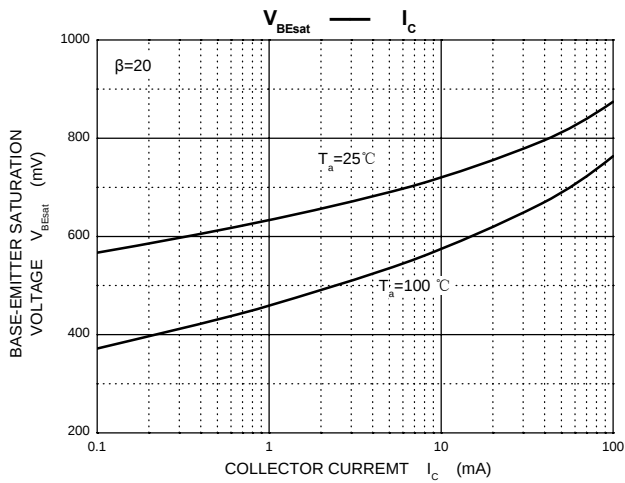
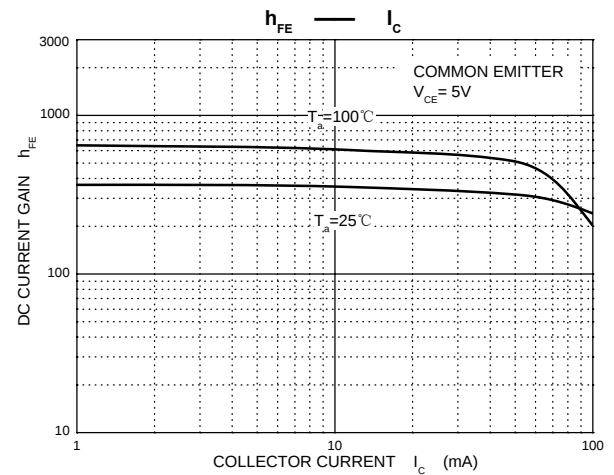
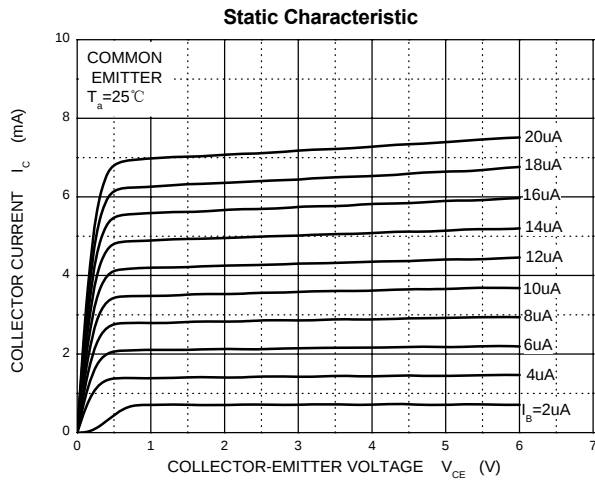
MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

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_{θJA}	Thermal Resistance From Junction To Ambient		833	°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range		-55-150	°C

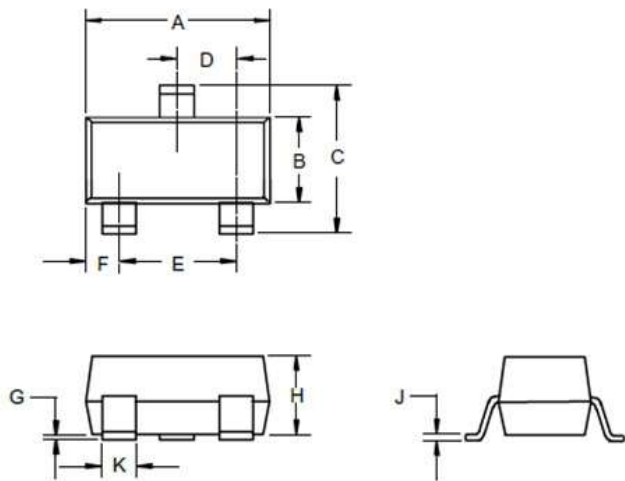
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage BC846W BC847W BC848W	V _{CBO}	I _C = 10μA, I _E =0	80 50 30			V
Collector-emitter breakdown voltage BC846W BC847W BC848W	V _{CEO}	I _C = 10mA, I _B =0	65 45 30			V
Emitter-base breakdown voltage BC846W BC847W BC848W	V _{EBO}	I _E = 1 μA, I _C =0	6 6 5			V
Collector Cutoff Current	I _{CBO}	V _{CB} =30V			15	nA
DC current gain BC846AW,847AW,848AW BC846BW,847BW,848BW BC847CW,BC848CW BC846AW,847AW,848AW BC846BW,847BW,848BW BC847CW,BC848CW	h _{FE}	V _{CE} = 5V, I _C = 10μA V _{CE} = 5V, I _C = 2mA	 110 200 420	90 150 270	 220 450 800	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =10mA, I _B =0.5mA I _C =100mA, I _B = 5mA			0.25 0.6	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =10mA, I _B =0.5mA I _C =100mA, I _B = 5mA		0.7 0.9		V
Base-emitter voltage	V _{BE(on)}	V _{CE} = 5V, I _C = 2mA V _{CE} = 5V, I _C = 10mA	580	660	700 770	mV
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 BC846BW,847BW,848BW BC847CW,BC848CW	NF	V _{CE} =5V,I _c =0.2mA, f=1KHz,R _S =2KΩ BW=200Hz			10 10 4	dB

Typical Characteristics

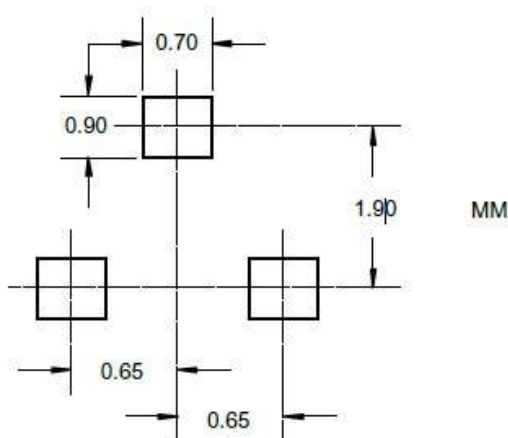


SOT-323 Package information

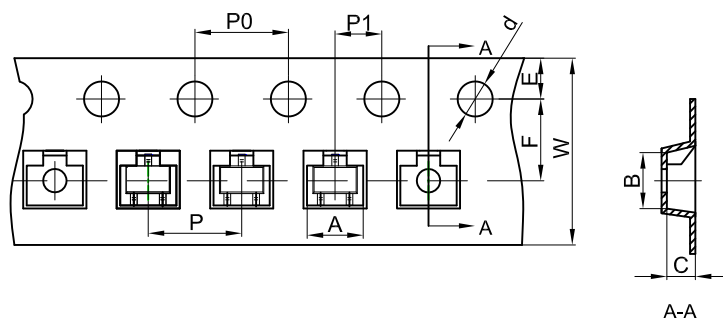


DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.083	.096	2.10	2.45	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.006	.016	.15	.40	

Suggested Pad Layout



SOT-323 Embossed Carrier Tape

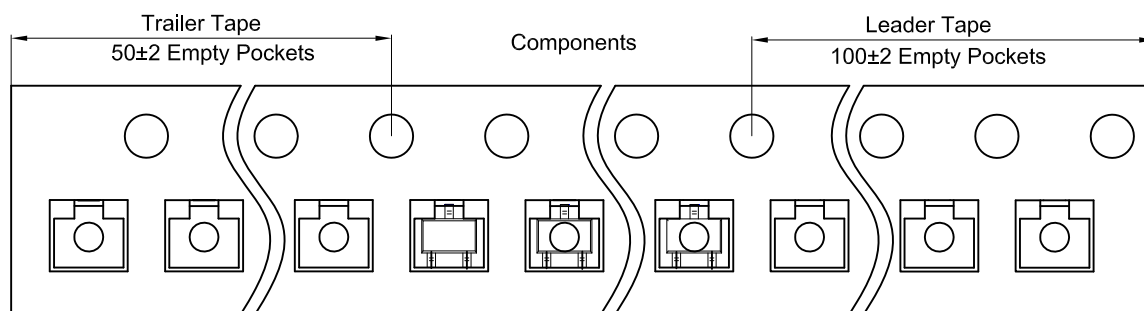


Packaging Description:

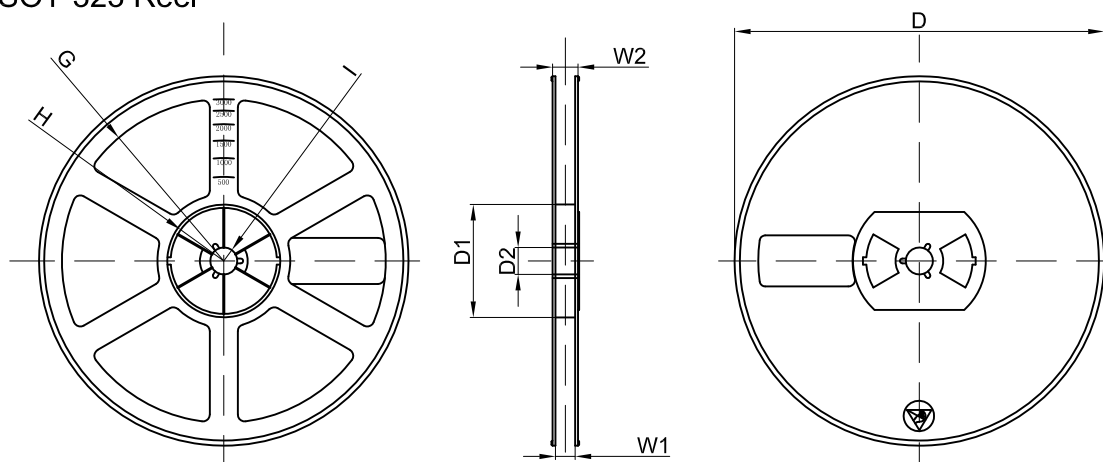
SOT-323 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and is made of polystyrene plastic (anti-static coated).

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-323	2.25	2.55	1.19	Ø1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOT-323 Tape Leader and Trailer



SOT-323 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7"Dia	Ø178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000 pcs	7 inch	45,000 pcs	203×203×195	180,000 pcs	438×438×220	