

Features

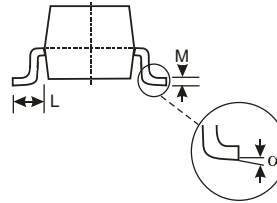
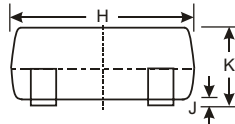
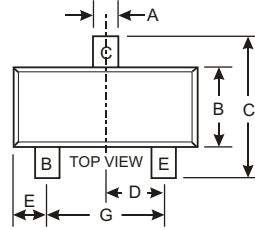
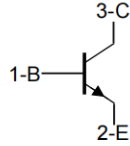
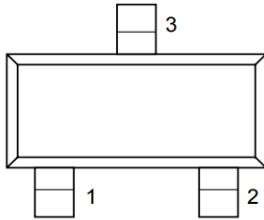
- Ideally suited for automatic insertion
- For Switching and AF Amplifier Applications

DEVICE MARKING

BC846A=1A; BC846B=1B;

BC847A=1E; BC847B=1F; BC847C=1G;

BC848A=1J; BC848B=1K; BC848C=1L



SOT-23		
Dim	Min	Max
A	0.37	0.51
B	1.20	1.40
C	2.30	2.50
D	0.89	1.03
E	0.45	0.60
G	1.78	2.05
H	2.80	3.00
J	0.013	0.10
K	0.903	1.10
L	0.45	0.61
M	0.085	0.180
α	0°	8°
All Dimensions in mm		

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	BC846	80
		BC847	50
		BC848	30
V_{CE0}	Collector-Emitter Voltage	BC846	65
		BC847	45
		BC848	30
V_{EB0}	Emitter-Base Voltage	6	V
I_C	Collector Current –Continuous	0.1	A
P_C^*	Collector Power Dissipation	200	mW
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65-150	$^\circ\text{C}$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BC846	V _{CBO} I _C = 10μA, I _E =0	80			V
	BC847		50			
	BC848		30			
Collector-emitter breakdown voltage	BC846	V _{CEO} I _C = 10mA, I _B =0	65			V
	BC847		45			
	BC848		30			
Emitter-base breakdown voltage		V _{EBO}	I _E = 10μA, I _C =0	6		V
Collector cut-off current	BC846	I _{CBO}	V _{CB} =70 V, I _E =0		0.1	μA
	BC847		V _{CB} =50 V, I _E =0			
	BC848		V _{CB} =30 V, I _E =0			
Collector cut-off current	BC846	I _{CEO}	V _{CE} =60 V, I _B =0		0.1	μA
	BC847		V _{CE} =45 V, I _B =0			
	BC848		V _{CE} =30 V, I _B =0			
Emitter cut-off current		I _{EBO}	V _{EB} =5 V, I _C =0		0.1	μA
DC current gain	BC846A,847A,848A	h _{FE}	V _{CE} = 5V, I _C = 2mA	110		220
	BC846B,847B,848B			200		450
	BC847C,BC848C			420		800
Collector-emitter saturation voltage		V _{CE(sat)}	I _C =100mA, I _B = 5mA		0.5	V
Base-emitter saturation voltage		V _{BE(sat)}	I _C =100mA, I _B = 5mA		1.1	V
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