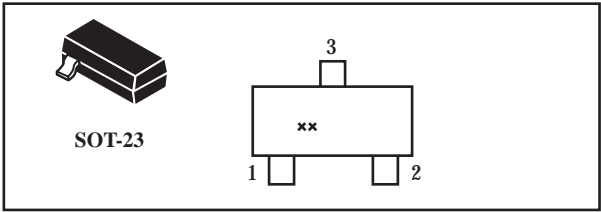
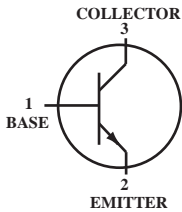


General Purpose Transistor

NPN Silicon

 **Lead(Pb)-Free**



Rating	Symbol	Value	Unit
Collector-Emitter Voltage BC846	V _{CEO}	65	V _{dc}
BC847, BC850		45	
BC848, BC849		30	
Collector-Base Voltage BC846	V _{CBO}	80	V _{dc}
BC847, BC850		50	
BC848, BC849		30	
Emitter-Base Voltage BC846	V _{EBO}	6.0	V _{dc}
BC847, BC850		6.0	
BC848, BC849		5.0	
	I _C		mA _{dc}

Electrical Characteristics (TA=25 °C Unless Otherwise noted)

Characteristics	Symbol	Min	Typ	Max	Unit
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Off Characteristics

Collector-Emitter Breakdown Voltage (IC= 10mA)	BC846A,B BC847A,B,C BC850B.C BC848A,B,C BC849B,C	V(BR)CEO	65 45 30	- - -	- - -	V
Collector-Emitter Breakdown Voltage (IC=10 µA , VEB=0)	BC846A,B BC847A,B,C BC850B.C BC848A,B,C BC849B,C	V(BR)CES	80 50 30	- - -	- - -	V
Collector-Base Breakdown Voltage (IC=10 µA)	BC846A,B BC847A,B,C BC850B.C BC848A,B,C BC849B,C	V(BR)CBO	80 50 30	- - -	- - -	V
Emitter-Base Breakdown Voltage (IE=1.0 µA)	BC846A,B BC847A,B,C BC850B.C BC848A,B,C BC849B,C	V(BR)EBO	6.0 6.0 5.0	- - -	- - -	V
Collector Cutoff Current (VCB=30V) (VCB=30V, TA=150 °C)		ICBO	- -	- -	15 5.0	nA mA

On Characteristics

DC Current Gain (IC= 10µA, VCE=5.0V)	BC846A, BC847A, BC848A BC846B, BC847B, BC848B BC847C, BC848C	hFE	- - -	90 150 270	- - -	-
(IC= 2.0mA, VCE=5.0V)	BC846A, BC847A, BC848A BC846B, BC847B, BC848B BC849B, BC850B, BC847C, BC848C, BC849C, BC850C		110 200 420	180 290 520	220 450 800	
Collector-Emitter Saturation Voltage (IC= 10mA, IB=0.5mA) (IC= 100mA, IB=5.0mA)		VCE(sat)	- -	- -	0.25 0.6	V
Base-Emitter Saturation Voltage (IC= 10mA, IB=0.5mA) (IC= 100mA, IB=5.0mA)		VBE(sat)	- -	-0.7 -0.9	- -	V
Base-Emitter On Voltage (IC= 2.0mA, VCE=5.0V) (IC= 10mA, VCE=5.0V)		VBE(on)	580 -	660 -	700 770	V

Small-signal Characteristics

Current-Gain-Bandwidth Product (IC= 10mA, VCE= 5.0Vdc, f=100MHz)	fT	100	-	-	MHz
Output Capacitance (VCB= 10V, f=1.0MHz)	Cobo	-	-	4.5	pF
Noise Figure (IC= 0.2mA, VCE= 5.0Vdc, Rs=2.0 kw, f=1.0 kHz, BW=200Hz)	NF	- -	- -	10 4.0	dB

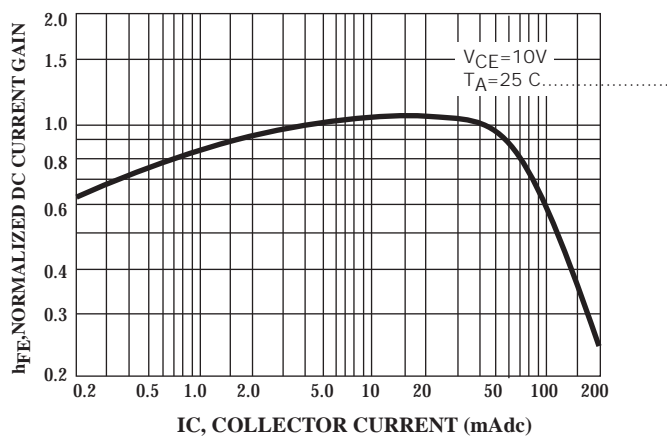


Figure1.Normalized DC Current Gain

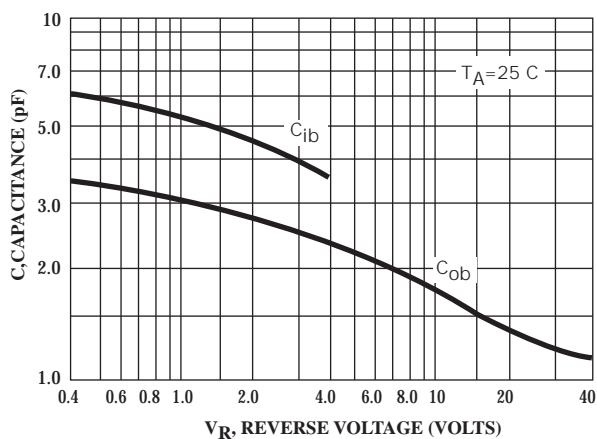


Figure 5. Capacitances

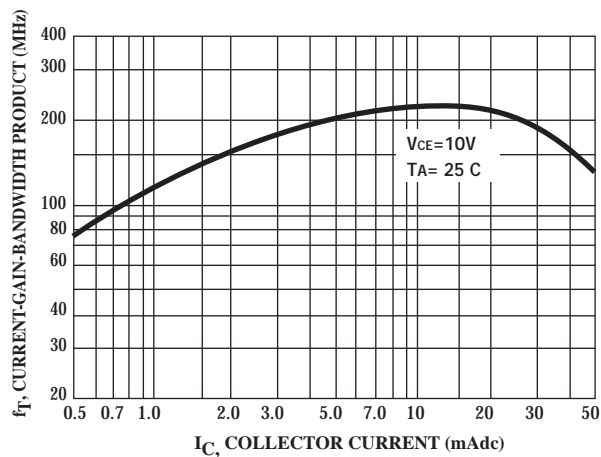
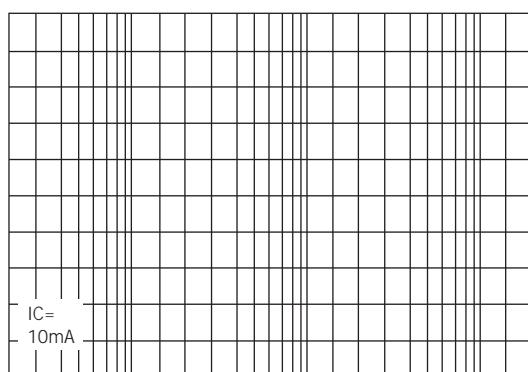


Figure 6. Current-Gain- Bandwidth Product

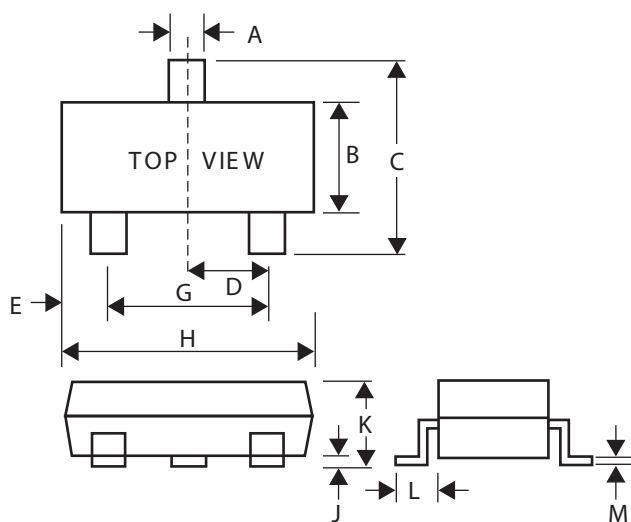
BC846A/B-BC847A/B/C
BC848A/B/C-BC849B/C
BC850B/C

 WEITRON



D -23

Unit:mm



D	Min	M
A	0.35	0.51
B	1.19	1.40
C	2.10	3.00
D	0.85	1.05
E	0.46	1.00
G	1.70	2.10
H	2.70	3.10
J	0.01	0.13
K	0.89	1.10
L	0.30	0.61
M	0.076	0.25