

GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION .

FEATURES

- High Voltage : BC846 $V_{CEO}=65V$.
- For Complementary With PNP Type BC856/857/858.

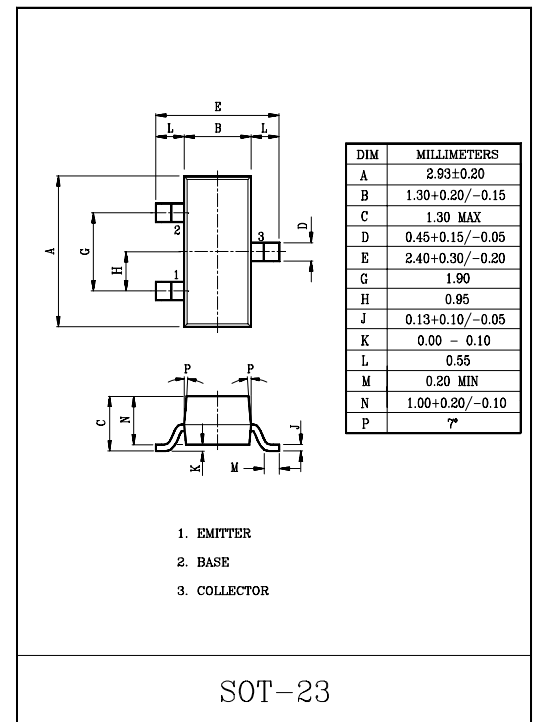
MAXIMUM RATINGS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	BC846	80	V
	BC847	50	
	BC848	30	
Collector-Emitter Voltage	BC846	65	V
	BC847	45	
	BC848	30	
Emitter-Base Voltage	BC846	6	V
	BC847	6	
	BC848	5	
Collector Current	I_C	100	mA
Emitter Current	I_E	-100	mA
Collector Power Dissipation	P_C *	350	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$

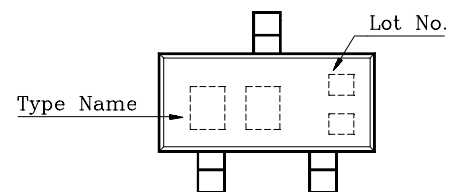
P_C * : Package Mounted On 99.5% Alumina $10 \times 8 \times 0.6mm$.

MARK SPEC

TYPE	BC846A	BC846B	BC847A	BC847B	BC847C	BC848A	BC848B	BC848C
MARK	1A	1B	1E	1F	1G	1J	1K	1L



Marking



BC846/7/8

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=30V, I_E=0$	-	-	15	nA
DC Current Gain (Note)	BC846	$V_{CE}=5V, I_C=2mA$	110	-	450	
	BC847		110	-	800	
	BC848		110	-	800	
Collector-Emitter Saturation Voltage	$V_{CE(sat) 1}$	$I_C=10mA, I_B=0.5mA$	-	0.09	0.25	V
	$V_{CE(sat) 2}$	$I_C=100mA, I_B=5mA$	-	0.2	0.6	
Base-Emitter Saturation Voltage	$V_{BE(sat) 1}$	$I_C=10mA, I_B=0.5mA$	-	0.7	-	V
	$V_{BE(sat) 2}$	$I_C=100mA, I_B=5mA$	-	0.9	-	
Base-Emitter Voltage	$V_{BE(ON1)}$	$V_{CE}=5V, I_C=2mA$	0.58	-	0.7	V
	$V_{BE(ON2)}$	$V_{CE}=5V, I_C=10mA$	-	-	0.75	V
Transition Frequency	f_T	$V_{CE}=5V, I_C=10mA, f=100MHz$	-	300	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$	-	2.5	4.5	pF
Noise Figure	NF	$V_{CE}=6V, I_C=0.1mA, R_g=10k\Omega, f=1kHz$	-	1.0	10	dB

NOTE : According to the value of h_{FE} the BC846, BC847, BC848 are classified as follows.

CLASSIFICATION		A	B	C
h_{FE}	BC846	110~220	200~450	-
	BC847	110~220	200~450	420~800
	BC848	110~220	200~450	420~800

BC846/7/8

