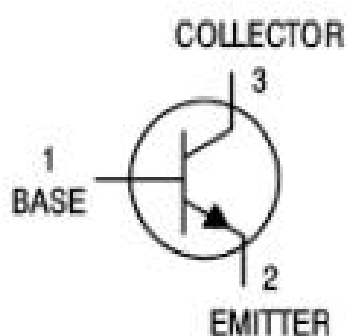


BC846 TRANSISTOR (NPN)

BC847

BC848

Equivalent Circuit:



SOT-23



FEATURES:

- ※ Ideally suited for automatic insertion
- ※ For switching and AF amplifier applications

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

Parameter	Symbol	Value	Unit
Collector-Base Voltage	VCBO	80	V
BC846		50	
BC847		30	
BC848			
Collector-Emitter Voltage	VCEO	65	V
BC846		45	
BC847		30	
BC848			
Emitter-Base Voltage	VEBO	6	V
Collector Current	IC	0.1	A
Collector Power Dissipation	PC	200	mW
Thermal Resistance From Junction To Ambient	RθJA	625	°C/W
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~+150	°C

DEVICE MARKING:

BC846A=1A; BC846B=1B

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

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


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

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-base breakdown voltage BC846 BC847 BC848	V(BR)CBO	IC= 10μA, IE=0	80 50 30			V
Collector-emitter breakdown voltage BC846 BC847 BC848	V(BR)CEO	IC= 10mA, IB=0	65 45 30			V
Emitter-base breakdown voltage	V(BR)EBO	IE=10μA, IC=0	6			V
Collector cut-off current BC846 BC847 BC848	ICBO	VCB=70 V , IE=0 VCB=50 V , IE=0 VCB=30 V , IE=0			0.01	μA
Emitter cut-off current	IEBO	VEB= 5V , IC=0			0.1	μA
DC current gain BC846A; 847A; 848A BC846B; 847B; 848B BC847C; BC848C	hFE	VCE=5V, IC= 2mA	110 200 420		220 450 800	
Collector-emitter saturation voltage	VCE(sat)	IC=100 mA, IB= 5mA			0.5	V
Base-emitter saturation voltage	VBE(sat)	IC=100 mA, IB= 5mA			1.1	V
Transition frequency	fT	VCE=5V, IC= 10mA f=100MHz	100			MHz
Collector Current Capacitance	Cob	VCE=10V, f=1MHz			4.5	pF

CLASSIFICATION OF hFE

Rank	L	H	J
Range	120-200	200-350	300-400

TYPICAL ELECTRICAL AND THERMAL CHARACTERISTICS

