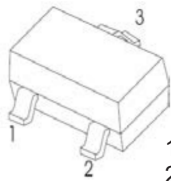


FEATURES

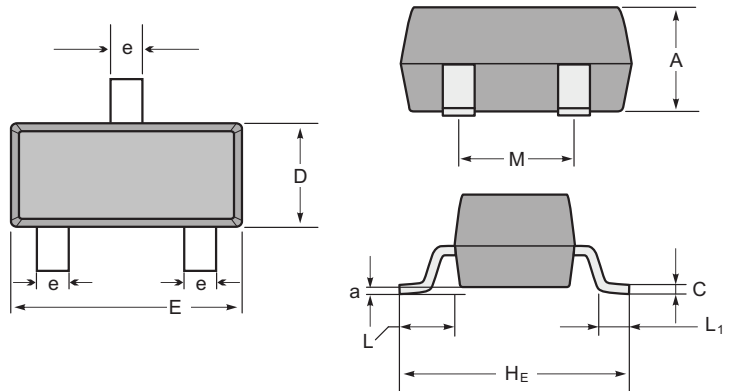
- Ideally suited for automatic insertion
- For switching and AF amplifier applications



1.BASE
2.EMITTER
3.COLLECTOR

Marking

Type number	Marking code
BC846A	1A
BC846B	1B
BC847A	1E
BC847B	1F
BC847C	1G
BC848A	1J
BC848B	1K
BC848C	1L



SOT-23 mechanical data

UNIT		A	C	D	E	H _E	e	M	L	L ₁	a
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0
	min	35	3	47	110	87	12	67			6

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

Parameter	Symbol	Value	Unit
Collector–Base Voltage	BC846 BC847 BC848 V_{CBO}	80 50 30	V
Collector–Emitter Voltage	BC846 BC847 BC848 V_{CEO}	65 45 30	V
Emitter–Base Voltage	V_{EBO}	6	V
Collector Current — Continuous	I_C	0.1	A
Collector Power Dissipation	P_C	200	mW
Thermal Resistance From Junction To Ambient	R_{thJA}	625	°C/W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55~+150	°C

BC846 BC847 BC848

ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage BC846 BC847 BC848	V_{CBO}	$I_C = 10\mu A, I_E = 0$	80 50 30			V
Collector-emitter breakdown voltage BC846 BC847 BC848	V_{CEO}	$I_C = 10mA, I_B = 0$	65 45 30			V
Emitter-base breakdown voltage	V_{EBO}	$I_E = 10\mu A, I_C = 0$	6			V
Collector cut-off current BC846 BC847 BC848	I_{CBO}	$V_{CB} = 70V, I_E = 0$ $V_{CB} = 50V, I_E = 0$ $V_{CB} = 30V, I_E = 0$			0.1	μA
Collector cut-off current BC846 BC847 BC848	I_{CEO}	$V_{CE} = 60V, I_B = 0$ $V_{CE} = 45V, I_B = 0$ $V_{CE} = 30V, I_B = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5V, I_C = 0$			0.1	μA
DC current gain BC846A,847A,848A BC846B,847B,848B BC847C,BC848C	h_{FE}	$V_{CE} = 5V, I_C = 2mA$	110 200 420		220 450 800	
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	$V_{CE} = 5V,$ $I_C = 10mA, f = 100MHz$	100			MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10V, f = 1MHz$			4.5	pF

RATING AND CHARACTERISTIC CURVES (BC846 BC847 BC848)

