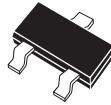


BC846 SERIES
BC847 SERIES
BC848 SERIES

SURFACE MOUNT
NPN SILICON TRANSISTOR



SOT-23 CASE

CentralTM

Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR BC846, BC847 and BC848 Series types are NPN Silicon Transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for general purpose switching and amplifier applications.

MARKING CODE: PLEASE SEE MARKING CODE TABLE ON FOLLOWING PAGE

Note: Reverse Lead Codes Available, Add "R" to the end of the Part # and Marking Code.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL	BC848	BC847	BC846	UNITS
Collector-Base Voltage	V _{CBO}	30	50	80	V
Collector-Emitter Voltage	V _{CEO}	30	45	65	V
Emitter-Base Voltage	V _{EBO}		5.0		V
Collector Current	I _C		100		mA
Peak Collector Current	I _{CM}		200		mA
Peak Base Current	I _{BM}		200		mA
Power Dissipation	P _D		350		mW
Operating and Storage Junction Temperature	T _J , T _{stg}		-65 to +150		°C
Thermal Resistance	Θ _{JA}		357		°C/W

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

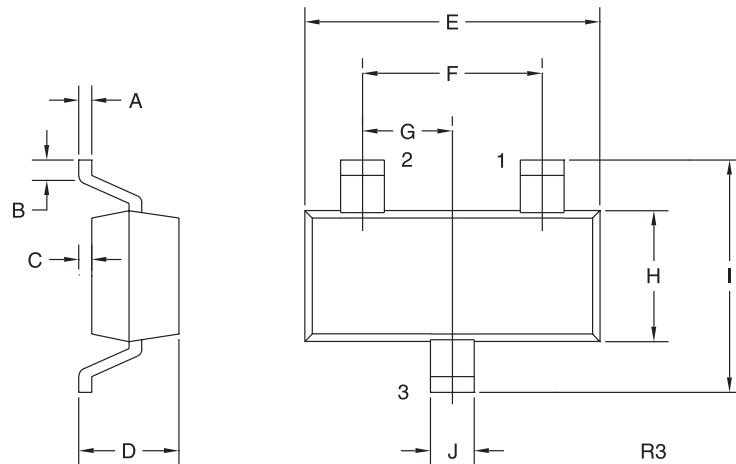
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{CBO}	V _{CB} = 30V			15	nA
I _{CBO}	V _{CB} = 30V, T _A =150°C			5.0	μA
I _{EBO}	V _{EB} =5.0V			100	nA
BV _{CBO}	I _C =10μA (BC848)	30			V
BV _{CBO}	I _C =10μA (BC847)	50			V
BV _{CBO}	I _C =10μA (BC846)	80			V
BV _{CEO}	I _C =10mA (BC848)	30			V
BV _{CEO}	I _C =10mA (BC847)	45			V
BV _{CEO}	I _C =10mA (BC846)	65			V
BV _{EBO}	I _E =10μA	5.0			V
V _{CE(SAT)}	I _C =10mA, I _B =0.5mA			0.25	V
V _{CE(SAT)}	I _C =100mA, I _B =5.0mA			0.6	V
V _{BE(ON)}	I _C =2.0mA, V _{CE} =5.0V	0.58		0.70	V
V _{BE(ON)}	I _C =10mA, V _{CE} =5.0V			0.77	V
f _T	V _{CE} =5.0V, I _C =10mA, f=100MHz	100			MHz
NF	V _{CE} =5.0V, I _C =200μA, R _S =2KΩ, f= 1KHz, BW=200Hz			10	dB

		<u>BC846A</u>		<u>BC846B</u>		<u>BC847C</u>	
		<u>BC847A</u>		<u>BC847B</u>		<u>BC848C</u>	
		<u>BC848A</u>		<u>BC848B</u>		<u>BC848C</u>	
		MIN	MAX	MIN	MAX	MIN	MAX
h _{FE}	V _{CE} =5.0V, I _C =2.0mA	110	220	200	450	420	800

R0 (29-October 2003)

**SURFACE MOUNT
NPN SILICON TRANSISTOR**

SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

STANDARD

- 1) BASE
- 2) EMITTER
- 3) COLLECTOR

***REVERSE**

- 1) EMITTER
- 2) BASE
- 3) COLLECTOR

DEVICE	MARKING CODE
BC846A	1A
BC846B	1B
BC847A	1E
BC847B	1F
BC847C	1G
BC848A	1J
BC848B	1K
BC848C	1L

DIMENSIONS

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

* Reverse Lead Codes Available, Add "R" to the end of the Part # and Marking Code.

R0 (29-October 2003)