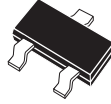


BC856 SERIES  
BC857 SERIES  
BC858 SERIES

SURFACE MOUNT  
PNP SILICON TRANSISTOR



SOT-23 CASE

# Central<sup>TM</sup>

Semiconductor Corp.

## DESCRIPTION:

The CENTRAL SEMICONDUCTOR BC856, BC857 and BC858 Series types are PNP 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<sub>A</sub>=25°C)

	SYMBOL	BC858	BC857	BC856	UNITS
Collector-Base Voltage	V <sub>CBO</sub>	30	50	80	V
Collector-Emitter Voltage	V <sub>CEO</sub>	30	45	65	V
Emitter-Base Voltage	V <sub>EBO</sub>		5.0		V
Collector Current	I <sub>C</sub>		100		mA
Peak Collector Current	I <sub>CM</sub>		200		mA
Peak Base Current	I <sub>BM</sub>		200		mA
Power Dissipation	P <sub>D</sub>		350		mW
Operating and Storage Junction Temperature	T <sub>J</sub> , T <sub>stg</sub>		-65 to +150		°C
Thermal Resistance	θ <sub>JA</sub>		357		°C/W

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

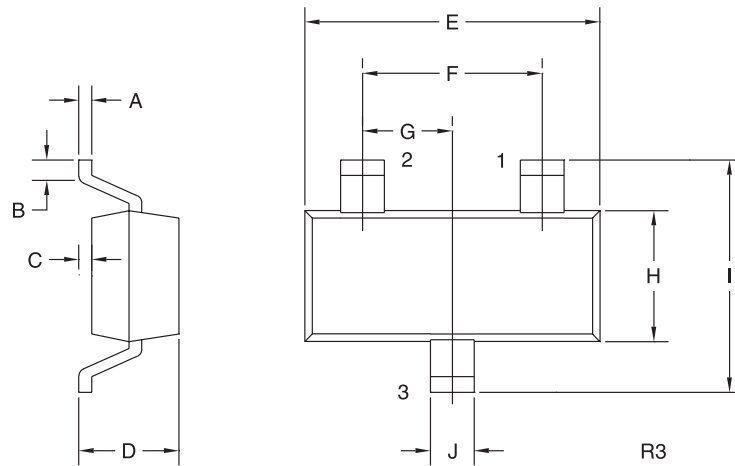
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I <sub>CBO</sub>	V <sub>CB</sub> = 30V			15	nA
I <sub>CBO</sub>	V <sub>CB</sub> = 30V, T <sub>A</sub> =150°C			4.0	μA
I <sub>EBO</sub>	V <sub>EB</sub> =5.0V			100	nA
BV <sub>CBO</sub>	I <sub>C</sub> =10μA (BC858)	30			V
BV <sub>CBO</sub>	I <sub>C</sub> =10μA (BC857)	50			V
BV <sub>CBO</sub>	I <sub>C</sub> =10μA (BC856)	80			V
BV <sub>CEO</sub>	I <sub>C</sub> =10mA (BC858)	30			V
BV <sub>CEO</sub>	I <sub>C</sub> =10mA (BC857)	45			V
BV <sub>CEO</sub>	I <sub>C</sub> =10mA (BC856)	65			V
BV <sub>EBO</sub>	I <sub>E</sub> =10μA	5.0			V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =10mA, I <sub>B</sub> =0.5mA			0.3	V
V <sub>CE(SAT)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =5.0mA			0.65	V
V <sub>BE(ON)</sub>	I <sub>C</sub> =2.0mA, V <sub>CE</sub> =5.0V	0.6		0.75	V
V <sub>BE(ON)</sub>	I <sub>C</sub> =10mA, V <sub>CE</sub> =5.0V			0.82	V
f <sub>T</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =10mA, f=100MHz	100			MHz
NF	V <sub>CE</sub> =5.0V, I <sub>C</sub> =200μA, R <sub>S</sub> =2KΩ, f= 1KHz, BW=200Hz			10	dB

		<u>BC856A</u>		<u>BC856B</u>		<u>BC857C</u>	
		<u>BC857A</u>		<u>BC857B</u>		<u>BC858C</u>	
		<u>BC858A</u>		<u>BC858B</u>		<u>BC858C</u>	
		MIN	MAX	MIN	MAX	MIN	MAX
h <sub>FE</sub>	V <sub>CE</sub> =5.0V, I <sub>C</sub> =2.0mA	125	250	220	475	420	800

R1 (10-September 2004)

**SURFACE MOUNT  
PNP SILICON TRANSISTOR**

**SOT-23 CASE - MECHANICAL OUTLINE**



**LEAD CODE:**

STANDARD	*REVERSE
1) BASE	1) EMITTER
2) EMITTER	2) BASE
3) COLLECTOR	3) COLLECTOR

DEVICE	MARKING CODE
BC856A	3A
BC856B	3B
BC857A	3E
BC857B	3F
BC857C	3G
BC858A	3J
BC858B	3K
BC858C	3L

SYMBOL	DIMENSIONS			
	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.