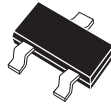


BC856 SERIES
BC857 SERIES
BC858 SERIES

SURFACE MOUNT
PNP SILICON TRANSISTOR



SOT-23 CASE

CentralTM

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 ($T_A=25^{\circ}\text{C}$)

	SYMBOL	BC858	BC857	BC856	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		$^{\circ}\text{C}$
Thermal Resistance	Θ_{JA}		357		$^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

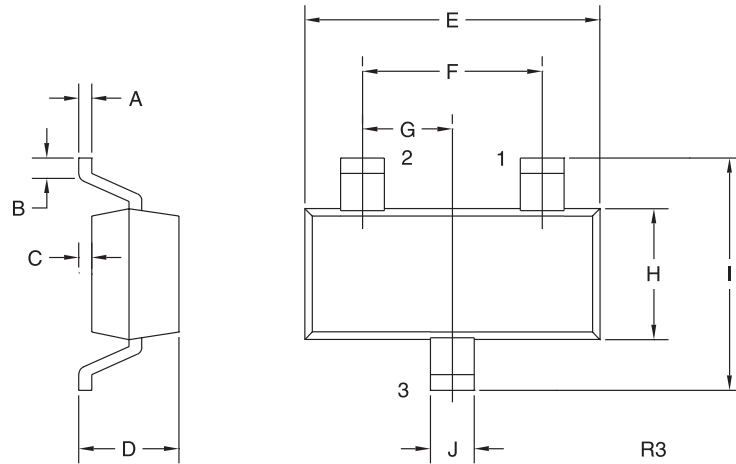
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CBO}	$V_{CB}=30\text{V}$			15	nA
I_{CBO}	$V_{CB}=30\text{V}, T_A=150^{\circ}\text{C}$			4.0	μA
I_{EBO}	$V_{EB}=5.0\text{V}$			100	nA
BV_{CBO}	$I_C=10\mu\text{A}$ (BC858)	30			V
BV_{CBO}	$I_C=10\mu\text{A}$ (BC857)	50			V
BV_{CBO}	$I_C=10\mu\text{A}$ (BC856)	80			V
BV_{CEO}	$I_C=10\text{mA}$ (BC858)	30			V
BV_{CEO}	$I_C=10\text{mA}$ (BC857)	45			V
BV_{CEO}	$I_C=10\text{mA}$ (BC856)	65			V
BV_{EBO}	$I_E=10\mu\text{A}$	5.0			V
$V_{CE(SAT)}$	$I_C=10\text{mA}, I_B=0.5\text{mA}$			0.3	V
$V_{CE(SAT)}$	$I_C=100\text{mA}, I_B=5.0\text{mA}$			0.65	V
$V_{BE(ON)}$	$I_C=2.0\text{mA}, V_{CE}=5.0\text{V}$	0.6		0.75	V
$V_{BE(ON)}$	$I_C=10\text{mA}, V_{CE}=5.0\text{V}$			0.82	V
f_T	$V_{CE}=5.0\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	100			MHz
NF	$V_{CE}=5.0\text{V}, I_C=200\mu\text{A}, R_S=2\text{K}\Omega, f=1\text{KHz}, BW=200\text{Hz}$			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_{FE}	$V_{CE}=5.0\text{V}, I_C=2.0\text{mA}$	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

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.

R1 (10-September 2004)