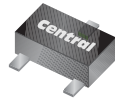


**BC856T SERIES
BC857T SERIES**

**SURFACE MOUNT
PNP SILICON TRANSISTOR**

ULTRAmi™



SOT-523 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR BC856T and BC857T 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: SEE MARKING CODE TABLE ON FOLLOWING PAGE

MAXIMUM RATINGS: (T_A=25°C)

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Peak Collector Current
Peak Base Current
Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL	BC857T	BC856T	UNITS
V _{CB0}	50	80	V
V _{CE0}	45	65	V
V _{EBO}		5.0	V
I _C		100	mA
I _{CM}		200	mA
I _{BM}		100	mA
P _D		250	mW
T _J , T _{stg}	-65 to +150		°C
θ _{JA}	500		°C/W

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I _{CB0}	V _{CB} =30V			15	nA
I _{CB0}	V _{CB} =30V, T _A =150°C			5.0	μA
I _{EBO}	V _{EB} =5.0V			100	nA
BV _{CB0}	I _C =10μA (BC857T)	50			V
BV _{CB0}	I _C =10μA (BC856T)	80			V
BV _{CE0}	I _C =10mA (BC857T)	45			V
BV _{CE0}	I _C =10mA (BC856T)	65			V
BV _{EBO}	I _E =10μA	5.0			V
V _{CE(SAT)}	I _C =10mA, I _B =0.5mA			0.20	V
V _{CE(SAT)}	I _C =100mA, I _B =5.0mA			0.40	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
C _c	V _{CB} =10V, I _E =0, f=1.0MHz			2.5	pF
C _e	V _{EB} =0.5V, I _C =0, f=1.0MHz		10		pF
NF	V _{CE} =5.0V, I _C =200μA, R _S =2.0KΩ, f=1.0KHz, BW=200Hz			10	dB

	V _{CE} =5.0V, I _C =2.0mA	BC856AT		BC856BT		BC857CT	
		MIN	MAX	MIN	MAX	MIN	MAX
h _{FE}		125	250	220	475	420	800

R1 (20-November 2009)

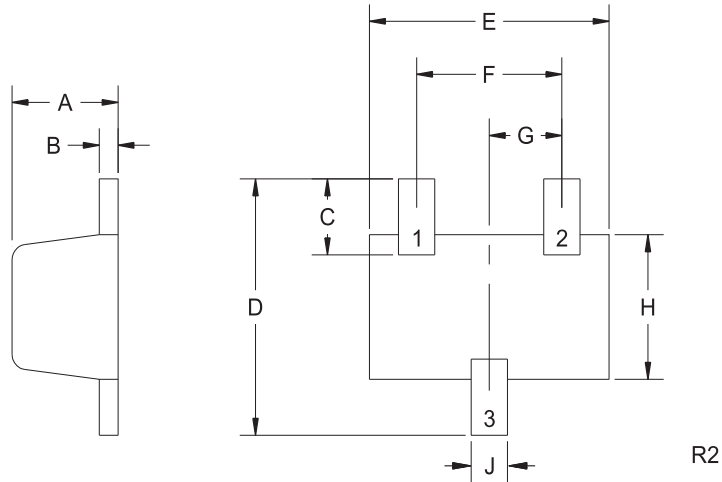
BC856T SERIES
BC857T SERIES

SURFACE MOUNT
PNP SILICON TRANSISTOR



SOT-523 CASE - MECHANICAL OUTLINE

BOTTOM VIEW



LEAD CODE:

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

DEVICE	MARKING CODE
BC856AT	GT6
BC856BT	GT7
BC857AT	GT8
BC857BT	GT9
BC857CT	GT0

SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.023	0.031	0.58	0.78
B	0.002	0.008	0.04	0.20
C	0.013	0.021	0.34	0.54
D	0.059	0.067	1.50	1.70
E	0.059	0.067	1.50	1.70
F	0.035	0.043	0.90	1.10
G	0.020		0.50	
H	0.031	0.039	0.78	0.98
J	0.010	0.014	0.25	0.35

SOT-523 (REV: R2)

R1 (20-November 2009)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

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