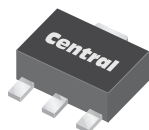


BCX51
BCX52
BCX53

**SURFACE MOUNT
PNP SILICON TRANSISTOR**



SOT-89 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR BCX51, BCX52, and BCX53 types are PNP Silicon Transistors manufactured by the epitaxial planar process, epoxy molded in a surface mount package, designed for high current general purpose amplifier applications.

**MARKING CODE: SEE MARKING CODE TABLE
ON FOLLOWING PAGE**

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

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

SYMBOL	BCX51	BCX52	BCX53	UNITS
V_{CBO}	45	60	100	V
V_{CEO}	45	60	80	V
V_{EBO}		5.0		V
I_C		1.0		A
I_{CM}		1.5		A
I_B		100		mA
I_{BM}		200		mA
P_D		1.3		W
T_J, T_{stg}		-65 to +150		$^{\circ}\text{C}$
θ_{JA}		96		$^{\circ}\text{C/W}$

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

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CBO}	$V_{CB}=30\text{V}$			100	nA
I_{CBO}	$V_{CB}=30\text{V}, T_A=125^{\circ}\text{C}$			10	μA
I_{EBO}	$V_{EB}=5.0\text{V}$			100	nA
BV_{CBO}	$I_C=100\mu\text{A}$ (BCX51)	45			V
BV_{CBO}	$I_C=100\mu\text{A}$ (BCX52)	60			V
BV_{CBO}	$I_C=100\mu\text{A}$ (BCX53)	100			V
BV_{CEO}	$I_C=10\text{mA}$ (BCX51)	45			V
BV_{CEO}	$I_C=10\text{mA}$ (BCX52)	60			V
BV_{CEO}	$I_C=10\text{mA}$ (BCX53)	80			V
$V_{CE(SAT)}$	$I_C=500\text{mA}, I_B=50\text{mA}$			0.5	V
$V_{BE(ON)}$	$V_{CE}=2.0\text{V}, I_C=500\text{mA}$			1.0	V
h_{FE}	$V_{CE}=2.0\text{V}, I_C=5.0\text{mA}$	40			
h_{FE}	$V_{CE}=2.0\text{V}, I_C=150\text{mA}$	63		250	
h_{FE}	$V_{CE}=2.0\text{V}, I_C=150\text{mA}$ (BCX51-10, BCX52-10, BCX53-10)	63		160	
h_{FE}	$V_{CE}=2.0\text{V}, I_C=150\text{mA}$ (BCX51-16, BCX52-16, BCX53-16)	100		250	
h_{FE}	$V_{CE}=2.0\text{V}, I_C=500\text{mA}$	25			
f_T	$V_{CE}=5.0\text{V}, I_C=10\text{mA}, f=100\text{MHz}$		50		MHz

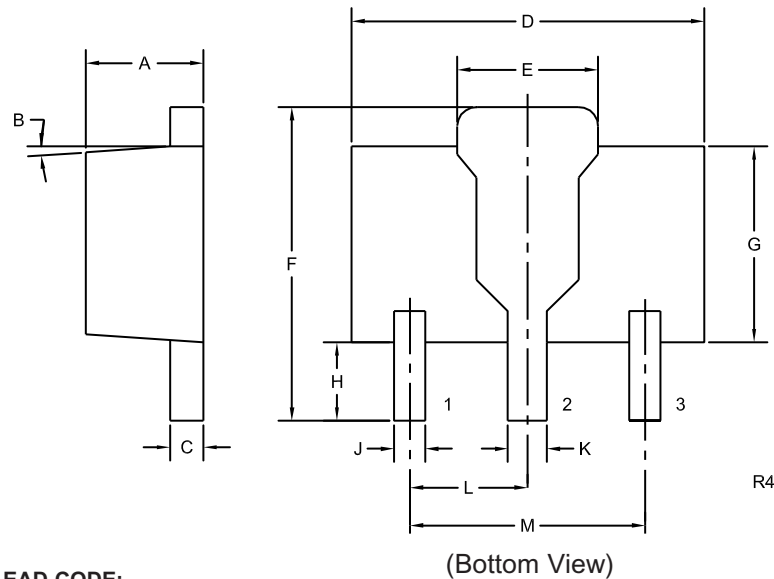
R5 (20-November 2009)

BCX51
BCX52
BCX53

**SURFACE MOUNT
PNP SILICON TRANSISTOR**



SOT-89 CASE - MECHANICAL OUTLINE



LEAD CODE:
1) EMITTER
2) COLLECTOR
3) BASE

DEVICE	MARKING CODE
BCX51	AA
BCX51-10	AC
BCX51-16	AD
BCX52	AE
BCX52-10	AG
BCX52-16	AM
BCX53	AH
BCX53-10	AK
BCX53-16	AL

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.055	0.067	1.40	1.70
B	4°		4°	
C	0.014	0.018	0.35	0.46
D	0.173	0.185	4.40	4.70
E	0.064	0.074	1.62	1.87
F	0.146	0.177	3.70	4.50
G	0.090	0.106	2.29	2.70
H	0.028	0.051	0.70	1.30
J	0.014	0.019	0.36	0.48
K	0.017	0.023	0.44	0.58
L	0.059		1.50	
M	0.118		3.00	

SOT-89 (REV: R4)

R5 (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).

CONTACT US

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

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