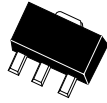


BCX51
BCX52
BCX53

**SURFACE MOUNT
PNP SILICON TRANSISTOR**



SOT-89 CASE

CentralTM
Semiconductor Corp.

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.

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

		<u>BCX51</u>	<u>BCX52</u>	<u>BCX53</u>	UNITS
Collector-Base Voltage	V_{CBO}	45	60	100	V
Collector-Emitter Voltage	V_{CEO}	45	60	80	V
Emitter-Base Voltage	V_{EBO}		5.0		V
Collector Current	I_C		1.0		A
Peak Collector Current	I_{CM}		1.5		A
Base Current	I_B		100		mA
Peak Base Current	I_{BM}		200		mA
Power Dissipation	P_D		1.2		W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +150		$^\circ\text{C}$
Thermal Resistance	θ_{JA}		104		$^\circ\text{C/W}$

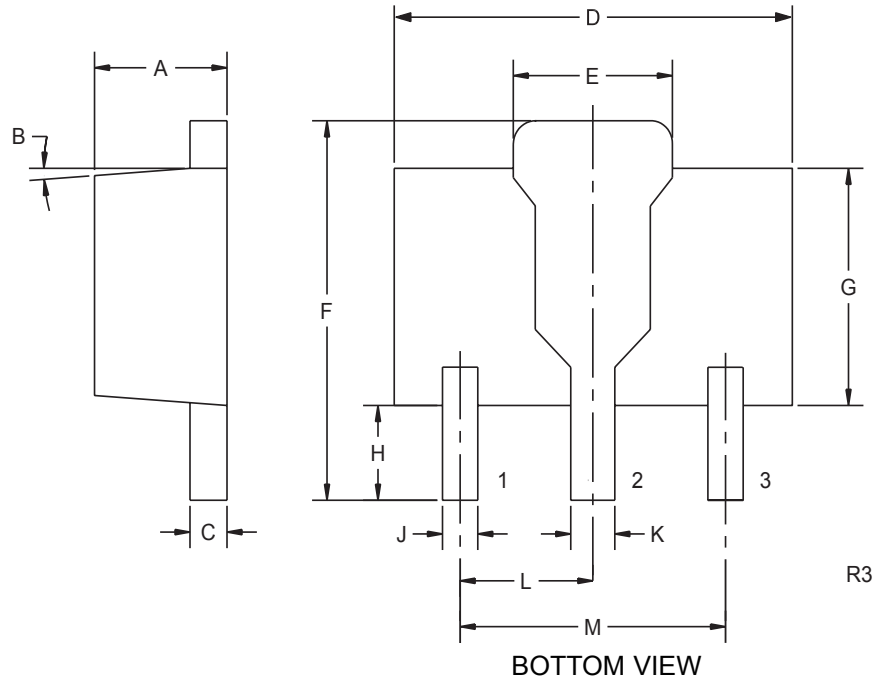
ELECTRICAL CHARACTERISTICS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

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
$V_{BE(ON)}$	$V_{CE}=2.0\text{V}, I_B=500\text{mA}$			1.0	V
h_{FE}	$V_{CE}=2.0\text{V}, I_C=5.0\text{mA}$	63			
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}	$V_{CE}=2.0\text{V}, I_C=500\text{mA}$	40			
f_T	$V_{CE}=5.0\text{V}, I_C=10\text{mA}, f=100\text{MHz}$		50		MHz

R1 (18-December 2001)

**SURFACE MOUNT
PNP SILICON TRANSISTOR**

SOT-89 CASE - MECHANICAL OUTLINE



LEAD CODE:

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

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

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.055	0.067	1.40	1.70
B	4°		4°	
C	0.016	0.018	0.40	0.46
D	0.173	0.185	4.40	4.70
E	0.070	0.074	1.79	1.87
F	0.146	0.177	3.70	4.50
G	0.094	0.106	2.40	2.70
H	0.028	0.051	0.70	1.30
J	0.015	0.019	0.38	0.48
K	0.019	0.023	0.48	0.58
L	0.059		1.50	
M	0.118		3.00	

SOT-89 (REV: R3)

R1 (18-December 2001)