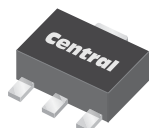


BCX54  
BCX55  
BCX56

**SURFACE MOUNT  
NPN SILICON TRANSISTOR**



**SOT-89 CASE**



[www.centrasemi.com](http://www.centrasemi.com)

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR BCX54, BCX55, and BCX56 types are NPN 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	BCX54	BCX55	BCX56	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		$^\circ\text{C}$
$\theta_{JA}$		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	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=5.0\text{V}$			100	nA
$BV_{CBO}$	$I_C=100\mu\text{A}$ (BCX54)	45			V
$BV_{CBO}$	$I_C=100\mu\text{A}$ (BCX55)	60			V
$BV_{CBO}$	$I_C=100\mu\text{A}$ (BCX56)	100			V
$BV_{CEO}$	$I_C=10\text{mA}$ (BCX54)	45			V
$BV_{CEO}$	$I_C=10\text{mA}$ (BCX55)	60			V
$BV_{CEO}$	$I_C=10\text{mA}$ (BCX56)	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	
$h_{FE}$	$V_{CE}=2.0\text{V}, I_C=150\text{mA}$ (BCX54-10, BCX55-10, BCX56-10)	63		160	
$h_{FE}$	$V_{CE}=2.0\text{V}, I_C=150\text{mA}$ (BCX54-16, BCX55-16, BCX56-16)	100		250	
$h_{FE}$	$V_{CE}=2.0\text{V}, I_C=500\text{mA}$	25			
$f_T$	$V_{CE}=5.0\text{V}, I_C=10\text{mA}, f=100\text{MHz}$		130		MHz

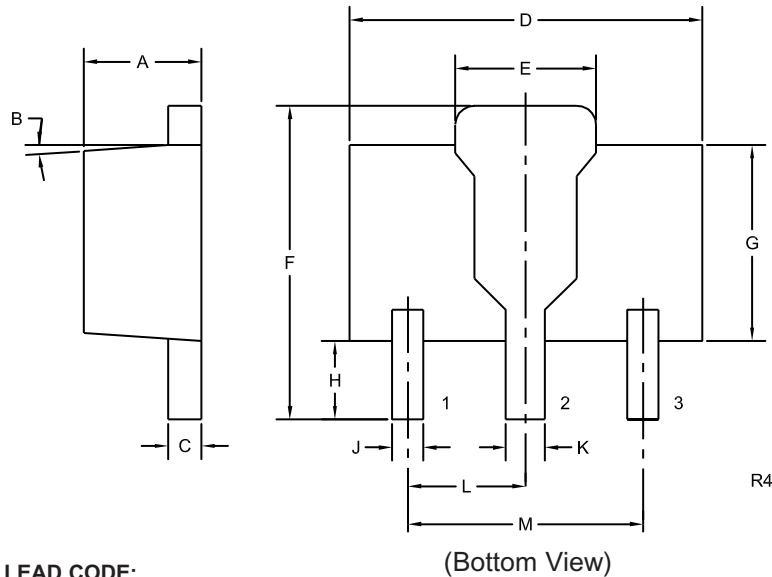
R5 (20-November 2009)

BCX54  
BCX55  
BCX56



**SURFACE MOUNT  
NPN SILICON TRANSISTOR**

**SOT-89 CASE - MECHANICAL OUTLINE**



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

DEVICE	MARKING CODE
BCX54	BA
BCX54-10	BC
BCX54-16	BD
BCX55	BE
BCX55-10	BG
BCX55-16	BM
BCX56	BH
BCX56-10	BK
BCX56-16	BL

SYMBOL	DIMENSIONS			
	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)