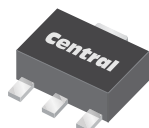


BCX54  
BCX55  
BCX56

**SURFACE MOUNT  
NPN SILICON TRANSISTOR**



**SOT-89 CASE**



[www.centralemi.com](http://www.centralemi.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

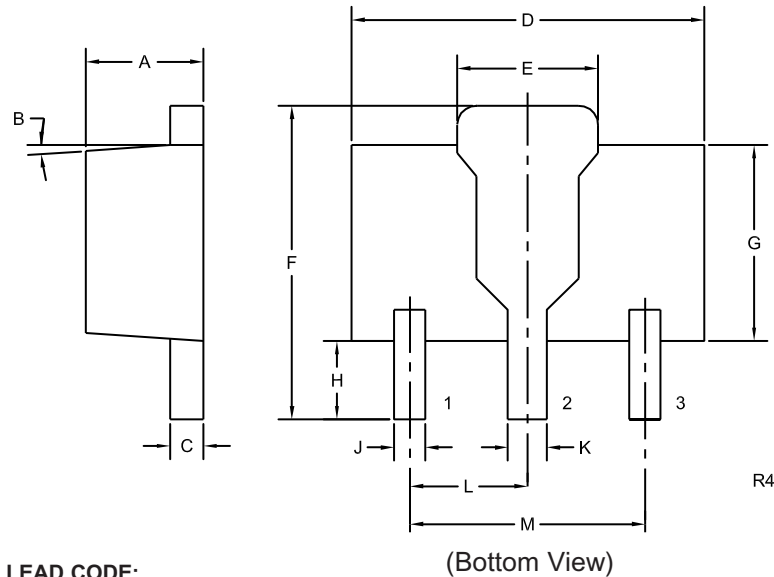
R5 (20-November 2009)

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	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



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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> 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

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### 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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### CONTACT US

#### Corporate Headquarters & Customer Support Team

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**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://www.centrasemi.com/wwdistributors)

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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: [www.centrasemi.com/terms](http://www.centrasemi.com/terms)



<http://www.centrasemi.com>

# Product End of Life Notification

<b>PDN ID:</b>	PDN01094
<b>Notification Date:</b>	6/18/18
<b>Last Buy Date:</b>	12/18/18
<b>Last Shipment Date</b>	6/18/19

Summary: The BCX56 series devices are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

<u>Central Part Number</u>	<u>Replacement</u>
BCX56 BK	N/A
BCX56 TR	N/A
BCX56-10 TR	N/A
BCX56-16 BK	N/A
BCX56-16 TR	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to [engineering@centrasemi.com](mailto:engineering@centrasemi.com).

**DISCLAIMER:** This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.