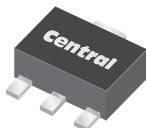


**BCX54, BCX54-10, BCX54-16
BCX55, BCX55-10, BCX55-16
BCX56, BCX56-10, BCX56-16**

**SURFACE MOUNT
NPN SILICON TRANSISTOR**



SOT-89 CASE



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		$^\circ\text{C}$
θ_{JA}		96		$^\circ\text{C/W}$

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

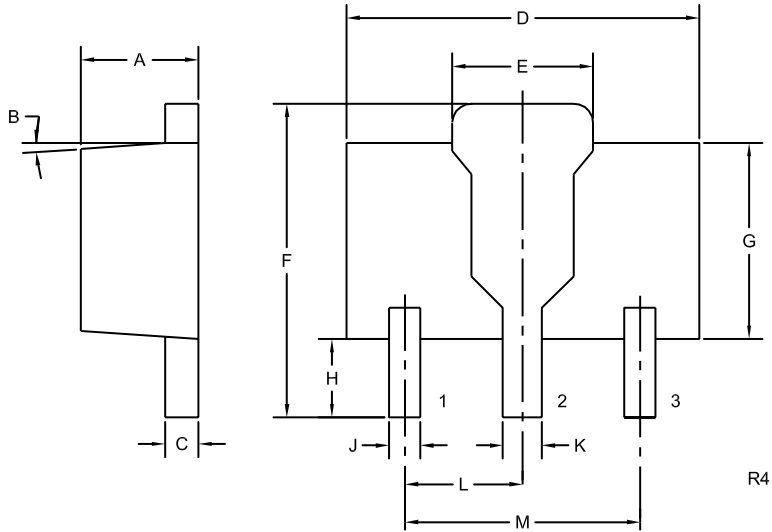
SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
I_{CBO}	$V_{CB}=30\text{V}$			100	nA
I_{CBO}	$V_{CB}=30\text{V}, T_A=125^\circ\text{C}$			10	μA
I_{EBO}	$V_{EB}=5.0\text{V}$			100	nA
BV_{CBO}	$I_C=100\mu\text{A}$ (BCX54)	45			V
BV_{CBO}	$I_C=100\mu\text{A}$ (BCX55)	60			V
BV_{CBO}	$I_C=100\mu\text{A}$ (BCX56)	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

BCX54, BCX54-10, BCX54-16
 BCX55, BCX55-10, BCX55-16
 BCX56, BCX56-10, BCX56-16



**SURFACE MOUNT
 NPN SILICON TRANSISTOR**

SOT-89 CASE - MECHANICAL OUTLINE



(Bottom View)

- 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)

R6 (7-March 2023)

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

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www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

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>

Product End of Life Notification

PDN ID:	PDN01094 Rev:001
Notification Date:	9/01/21
Last Buy Date:	12/18/18
Last Shipment Date	6/18/19

Summary: The BCX56 series of devices listed below was discontinued on June 18, 2018, and is currently classified as End of Life (EOL). Rev:001 of PDN#01094, September 1, 2021, is being issued to remove part number BCX56-16 from the PDN to address market demand; BCX56-16 is now an active device.

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.

*** All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.**

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

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.