

**BSX62  
BSX63**

**NPN SILICON TRANSISTOR**



**TO-39 CASE**

# Central<sup>TM</sup>

**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR BSX62, BSX63 types are NPN Silicon Transistors designed for general purpose applications where high collector current is required.

**MARKING: FULL PART NUMBER**

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

	SYMBOL	BSX62	BSX63	UNITS
Collector-Base Voltage	$V_{CBO}$	60	80	V
Collector-Emitter Voltage	$V_{CEO}$	40	60	V
Emitter-Base Voltage	$V_{EBO}$		5.0	V
Collector Current	$I_C$		3.0	A
Power Dissipation	$P_D$		5.0	W
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +200		$^\circ\text{C}$
Thermal Resistance	$\theta_{JC}$	35		$^\circ\text{C/W}$

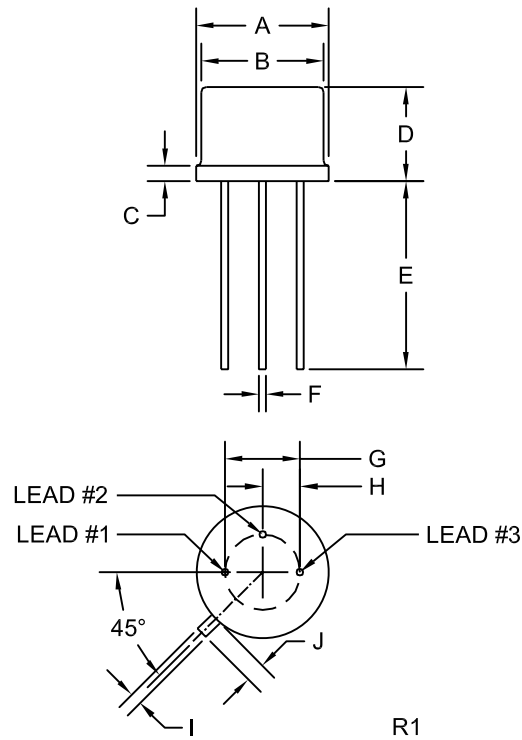
**ELECTRICAL CHARACTERISTICS:** ( $T_C=25^\circ\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNITS
$I_{CBO}$	$V_{CB}=40\text{V}$ (BSX62)			100	nA
$I_{CBO}$	$V_{CB}=40\text{V}, T_C=150^\circ\text{C}$ (BSX62)			100	$\mu\text{A}$
$I_{CBO}$	$V_{CB}=60\text{V}$ (BSX63)			100	nA
$I_{CBO}$	$V_{CB}=60\text{V}, T_C=150^\circ\text{C}$ (BSX63)			100	$\mu\text{A}$
$I_{EBO}$	$V_{EB}=5.0\text{V}$			100	nA
$V_{CE(SAT)}$	$I_C=1.0\text{A}, I_B=100\text{mA}$			0.7	V
$V_{CE(SAT)}$	$I_C=2.0\text{A}, I_B=200\text{mA}$			0.8	V
$V_{BE(SAT)}$	$I_C=1.0\text{A}, I_B=100\text{mA}$			1.2	V
$V_{BE(SAT)}$	$I_C=2.0\text{A}, I_B=200\text{mA}$			1.3	V
$V_{BE(ON)}$	$V_{CE}=1.0\text{V}, I_C=100\text{mA}$			1.0	V
$V_{BE(ON)}$	$V_{CE}=1.0\text{V}, I_C=1.0\text{A}$			1.2	V
$V_{BE(ON)}$	$V_{CE}=5.0\text{V}, I_C=2.0\text{A}$			1.3	V
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=1.0\text{A}$ (BSX62, 63-10)	63		160	
$h_{FE}$	$V_{CE}=1.0\text{V}, I_C=1.0\text{A}$ (BSX62, 63-16)	100		250	
$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$			70	pF
$f_T$	$V_{CE}=10\text{V}, I_C=200\text{mA}, f=100\text{MHz}$	30			MHz
$t_{on}$	$I_C=1.0\text{A}, I_{B1}=I_{B2}=50\text{mA}$			300	ns
$t_{off}$	$I_C=1.0\text{A}, I_{B1}=I_{B2}=50\text{mA}$		4.0		$\mu\text{s}$

R0 (2-April 2008)

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TO-39 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.335	0.370	8.51	9.40
B (DIA)	0.315	0.335	8.00	8.51
C	-	0.040	-	1.02
D	0.240	0.260	6.10	6.60
E	0.500	-	12.70	-
F (DIA)	0.016	0.021	0.41	0.53
G (DIA)	0.200		5.08	
H	0.100		2.54	
I	0.028	0.034	0.71	0.86
J	0.029	0.045	0.74	1.14

TO-39 (REV: R1)

**LEAD CODE:**

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

**MARKING: FULL PART NUMBER**

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