

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

www.centrasemi.com

**BSS74
BSS75
BSS76**

**PNP SILICON
HIGH VOLTAGE TRANSISTOR**

JEDEC TO-18 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR BSS74 series types are hermetically sealed PNP small signal transistors manufactured by the epitaxial planar process designed for high voltage amplifier applications.

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

	SYMBOL	BSS74	BSS75	BSS76	UNITS
Collector-Base Voltage	V _{CB0}	200	250	300	V
Collector-Emitter Voltage	V _{CEO}	200	250	300	V
Emitter-Base Voltage	V _{EBO}		5.0		V
Collector Current	I _C		500		mA
Power Dissipation	P _D		500		mW
Power Dissipation (T _C =25°C)	P _D		2.5		W
Operating and Storage Junction Temperature	T _J , T _{stg}		-65 to +200		°C
Thermal Resistance	θ _{JA}		350		°C/W
Thermal Resistance	θ _{JC}		70		°C/W

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

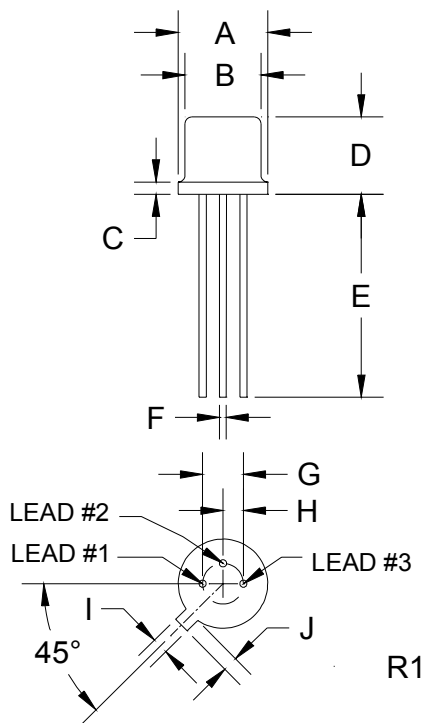
SYMBOL	TEST CONDITIONS	BSS74			BSS75			BSS76			UNITS
		MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
I _{CBO}	V _{CB} =150V			50							nA
I _{CBO}	V _{CB} =200V					50					nA
I _{CBO}	V _{CB} =250V								50		nA
I _{CEO}	V _{CE} =150V			500							nA
I _{CEO}	V _{CE} =200V					500					nA
I _{CEO}	V _{CE} =300V								500		nA
I _{EBO}	V _{EB} =5.0V			50		50			50		nA
BV _{CB0}	I _C =100μA	200			250			300			V
BV _{CEO}	I _C =10mA	200			250			300			V
BV _{EBO}	I _E =100μA	6.0			6.0			6.0			V
V _{CE(SAT)}	I _C =10mA, I _B =1.0mA		0.3			0.3			0.3		V
V _{CE(SAT)}	I _C =30mA, I _B =3.0mA		0.4			0.4			0.4		V
V _{CE(SAT)}	I _C =50mA, I _B =5.0mA		0.5			0.5			0.5		V
V _{CE(SAT)}	I _C =100mA, I _B =10mA							0.4			V
V _{BE(SAT)}	I _C =10mA, I _B =1.0mA		0.8			0.8			0.8		V
V _{BE(SAT)}	I _C =30mA, I _B =3.0mA		0.9			0.9			0.9		V
V _{BE(SAT)}	I _C =50mA, I _B =5.0mA		1.0			1.0			1.0		V
V _{BE(SAT)}	I _C =100mA, I _B =10mA							0.9			V

(SEE REVERSE SIDE)

ELECTRICAL CHARACTERISTICS Continued

SYMBOL	TEST CONDITIONS	BSS74			BSS75			BSS76			UNITS
		MIN	TYP	MAX	MIN	TYP	MAX	MIN	TYP	MAX	
h_{FE}	$V_{CE}=1.0V, I_C=100\mu A$	20									
h_{FE}	$V_{CE}=10V, I_C=1.0mA$	30			30			30			
h_{FE}	$V_{CE}=10V, I_C=10mA$	35			35			35			
h_{FE}	$V_{CE}=10V, I_C=30mA$	35			150			35			150
h_{FE}	$V_{CE}=10V, I_C=100mA$							40			
f_T	$V_{CE}=20V, I_C=20mA, f=20MHz$	50			200			50			200
C_{ob}	$V_{CB}=20V, I_E=0, f=1.0MHz$	3.5			3.5			3.5			pF
C_{ib}	$V_{EB}=0.5V, I_C=0, f=1.0MHz$	45			45			45			pF
t_{on}	$V_{CC}=100V, I_C=50mA, I_{B1}=10mA$	100			100			100			ns
t_{off}	$V_{CC}=100V, I_C=50mA, I_{B2}=10mA$	400			400			400			ns

TO-18 PACKAGE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.209	0.230	5.31	5.84
B (DIA)	0.178	0.195	4.52	4.95
C	-	0.030	-	0.76
D	0.170	0.210	4.32	5.33
E	0.500	-	12.70	-
F (DIA)	0.016	0.019	0.41	0.48
G (DIA)	0.100		2.54	
H	0.050		1.27	
I	0.036	0.046	0.91	1.17
J	0.028	0.048	0.71	1.22

TO-18 (REV: R1)

- Lead Code
1. Emitter
 2. Base
 3. Collector

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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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