

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

BSV15, -10, -16
BSV16, -10, -16
BSV17, -10,

PNP SILICON TRANSISTORS

JEDEC TO-39 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR BSV15 series types are PNP Silicon Epitaxial Transistors designed for general purpose amplifier and switching applications.

MAXIMUM RATINGS (T_A=25°C)

	SYMBOL	BSV15	BSV16	BSV17	UNITS
Collector-Base Voltage	V _{CB0}	40	60	90	V
Collector-Emitter Voltage	V _{CEO}	40	60	80	V
Emitter-Base Voltage	V _{EBO}		5.0		V
Collector Current	I _C		1.0		A
Collector Current (Peak)	I _{CM}		2.0		A
Base Current (Peak)	I _{BM}		200		mA
Power Dissipation (T _C =25°C)	P _D		5.0		W
Power Dissipation	P _D		0.8		W
Operating and Storage					
Junction Temperature	T _J , T _{stg}		-65 to +200		°C
Thermal Resistance	θ _{JC}		35		°C/W
Thermal Resistance	θ _{JA}		219		°C/W

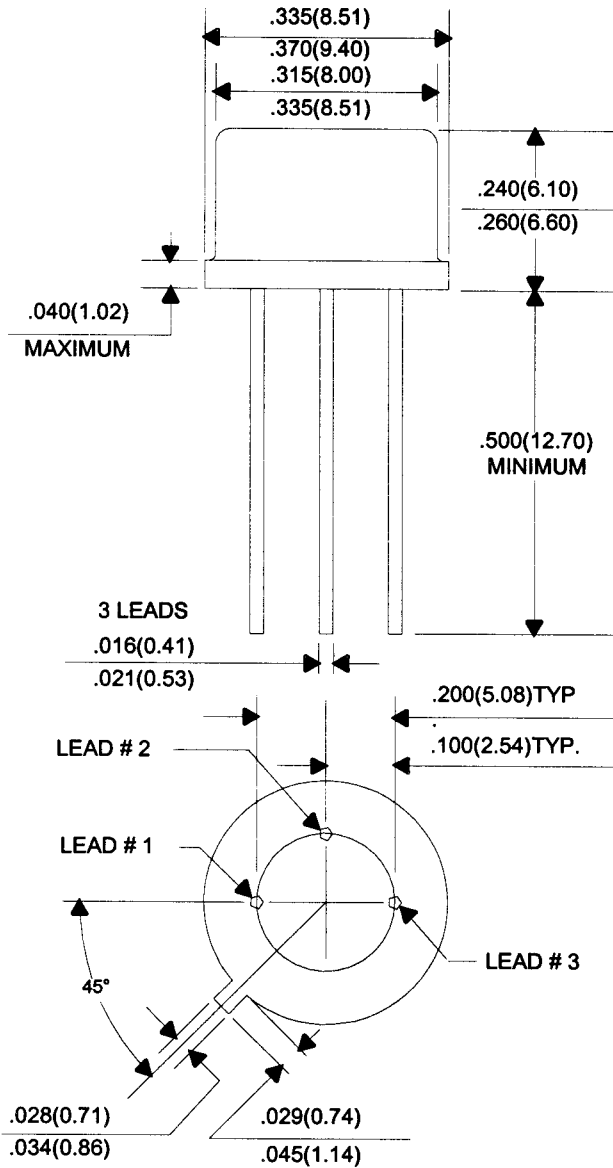
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	BSV15		BSV16		BSV17		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
I _{CB0}	V _{CB} =Rated V _{CEO}		100		100		100	nA
I _{CB0}	V _{CB} = Rated V _{CEO} , T _A =150°C		50		50		50	μA
I _{EBO}	V _{EB} =4.0V		50		50		50	nA
V _{CE(SAT)}	I _C =500mA, I _B =25mA		1.0		1.0		1.0	V
V _{BE(ON)}	V _{CE} =1.0V, I _C =100mA		1.0		1.0		1.0	V
V _{BE(ON)}	V _{CE} =1.0V, I _C =500mA	0.7	1.4	0.7	1.4	0.7	1.4	V
f _T	V _{CE} =10V, I _C =50mA, f=100MHz	50		50		50		MHz
C _c	V _{CB} =10V, I _E =0, f=1.0MHz		30		30		25	pF
C _e	V _{EB} =0.5V, I _C =0, f=1.0MHz	180	TYP	180	TYP	180	TYP	pF
t _{on}	I _C =100mA, I _{B1} =I _{B2} =5.0mA		500		500		500	ns
t _{off}	I _C =100mA, I _{B1} =I _{B2} =5.0mA		650		650		650	ns

SYMBOL	TEST CONDITIONS	BSV15-10 BSV16-10 BSV17-10		BSV15-16 BSV16-16		UNITS
		MIN	MAX	MIN	MAX	
h _{FE}	V _{CE} =1.0V, I _C =100μA	20		30		
h _{FE}	V _{CE} =1.0V, I _C =100mA	63	160	100	250	
h _{FE}	V _{CE} =1.0V, I _C =500mA	25		35		

(See Reverse Side)

JEDEC TO-39 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

Lead Code:

1. Emitter
2. Base
3. Collector

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