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PNP medium power transistors — BSV15; BSV16; BSV17

FEATURES

- High current (max. 1 A)
- Low voltage (max. 80 V).

APPLICATIONS

- General industrial applications.

DESCRIPTION

PNP medium power transistor in a TO-39 metal package.

PIN	DESCRIPTION
1	emitter
2	base
3	collector, connected to case

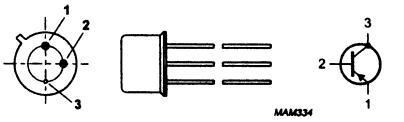


Fig.1 Simplified outline (TO-39) and symbol.

MAXIMUM RATINGS (T_A=25°C)

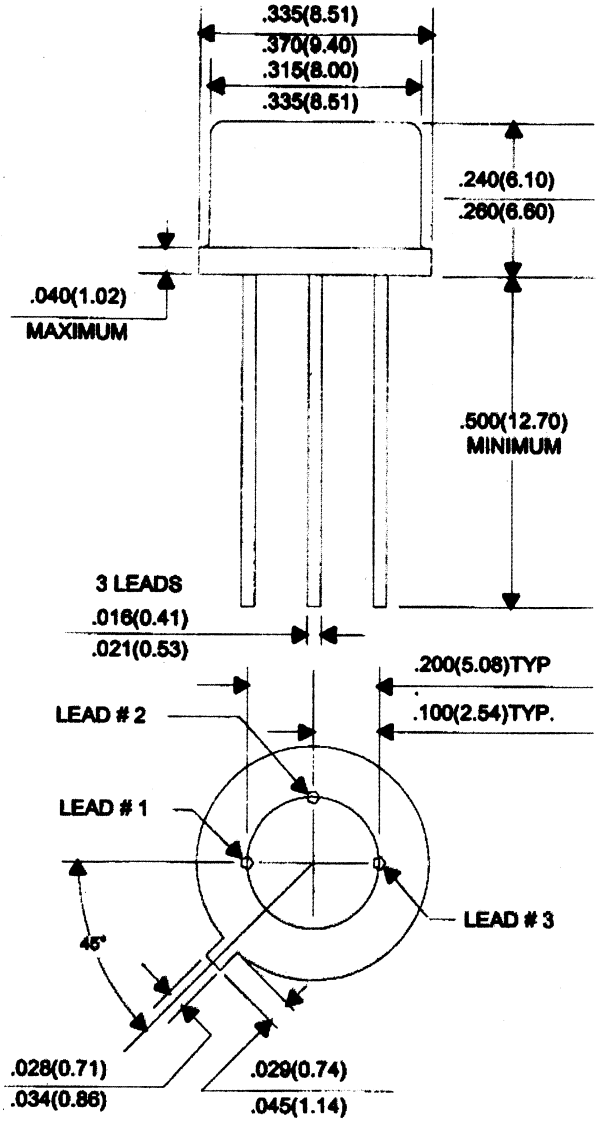
	SYMBOL	BSV15	BSV16	BSV17	UNITS
Collector-Base Voltage	V_{CBO}	40	60	90	V
Collector-Emitter Voltage	V_{CEO}	40	60	80	V
Emitter-Base Voltage	V_{EBO}		5.0		V
Collector Current	I_C		1.0		A
Collector Current (Peak)	I_{CM}		2.0		A
Base Current (Peak)	I_{BM}		200		mA
Power Dissipation (T_C=25°C)	P_D		5.0		W
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)

		BSV15		BSV16		BSV17		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	MIN	MAX	UNITS
I_{CBO}	V_{CB}=Rated V_{CEO}		100		100		100	nA
I_{CBO}	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

		BSV15-10 BSV16-10 BSV17-10		BSV15-16 BSV16-16		
SYMBOL	TEST CONDITIONS	MIN	MAX	MIN	MAX	UNITS
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		

JEDEC TO-39 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

Lead Code:

1. Emitter
2. Base
3. Collector