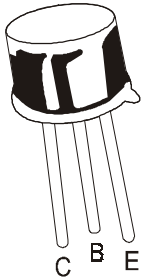


NPN SILICON PLANAR TRANSISTOR

BSX62, BSX63



**TO-39
Metal Can Package**

NPN SILICON PLANAR TRANSISTORS IN TO-39 PACKAGE.

ABSOLUTE MAXIMUM RATINGS (Ta=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	BSX62	BSX63	UNITS
Collector Emitter Voltage	V_{CEO}	40	60	V
Collector Emitter Voltage	V_{CES}	60	80	V
Emitter Base Voltage	V_{EBO}	5	5	V
Collector Current Continuous	I_C		3.0	A
Base Current	I_B		500	mA
Total Power Dissipation @ Ta=25°C	P_{tot}		5.0	W
Operating And Storage Junction Temperature Range	T_j, T_{stg}	-65 to +200		°C

THERMAL RESISTANCE

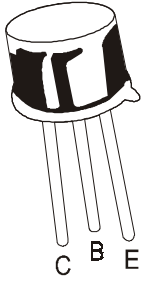
Junction to Ambient	$R_{th(j-a)}$	200	K/W
Junction to Case	$R_{th(j-c)}$	35	K/W

ELECTRICAL CHARACTERISTICS (Ta=25°C unless specified otherwise)

DESCRIPTION	SYMBOL TEST CONDITION	BSX62		BSX63		UNITS
		MIN	MAX	MIN	MAX	
Collector Emitter Breakdown Voltage	BV_{CEO}^* $I_C=100mA, I_B=0$	40		60		V
Collector Base Breakdown Voltage	BV_{CBO} $I_C=100\mu A, I_E=0$	60		60		V
Emitter Base Breakdown Voltage	BV_{EBO} $I_E=10\mu A, I_C=0$	5.0		5.0		V
Collector Cut off Current	I_{CES} $V_{CE}=40V, V_{BE}=0V$ $V_{CE}=40V, V_{BE}=0V$ $T_a=150^\circ C$	0.1				μA
		100				μA
Collector Cut off Current	I_{CES} $V_{CE}=60V, V_{BE}=0$ $V_{CE}=60V, V_{BE}=0$ $T_a=150^\circ C$			0.1		μA
				100		μA
Collector Emitter Saturation Voltage	$V_{CE(Sat)}^*$ $I_C=2A, I_B=.2A$ $I_C=1A, I_B=.1A$	0.8		0.8		V
		0.7		0.7		V
Base Emitter Saturation Voltage	$V_{BE(Sat)}^*$ $I_C=2A, I_B=.2A$ $I_C=1A, I_B=.1A$	1.3		1.3		V
		1.2		1.2		V
Base Emitter Voltage	$V_{BE(on)}$ $I_C=.1A, V_{CE}=1V$ $I_C=1.0A, V_{CE}=1V$ $I_C=2.0A, V_{CE}=5V$	1.0		1.0		V
		1.2		1.2		V
		1.3		1.3		V

NPN SILICON PLANAR TRANSISTOR

BSX62, BSX63



TO-39
Metal Can Package

ELECTRICAL CHARACTERISTICS (Ta=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	BSX62-6		BSX62-10		BSX62-16		UNITS
			BSX63-6		BSX63-10		BSX63-16		
			MIN	MAX	MIN	MAX	MIN	MAX	
DC Current Gain	h_{FE}^*	$I_C=0.1A, V_{CE}=1V$	30		30		30		
		$I_C=1.0A, V_{CE}=1V$	40	100	63	160	100	250	
		$I_C=2.0A, V_{CE}=5V$	25		25		25		

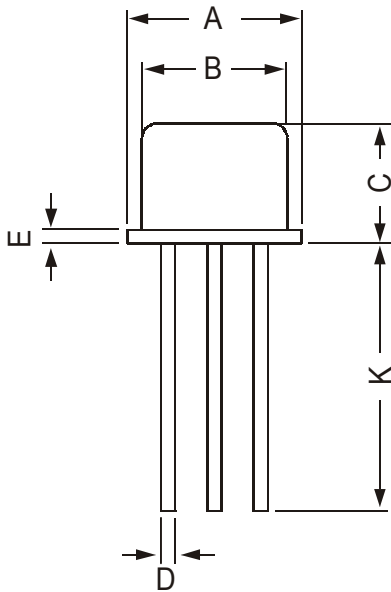
CHARACTERISTICS	SYMBOL	TEST CONDITION	ALL TYPES		UNITS
			MIN	MAX	

DYNAMIC CHARACTERISTICS

Transition Frequency	f_T	$I_C=200mA, V_{CE}=10V$	30		MHz
Collector Base Capacitance	C_{cbo}	$V_{CB}=10V, I_E=0$		70	pF

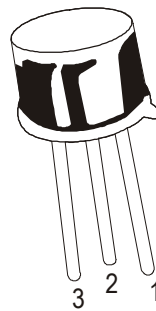
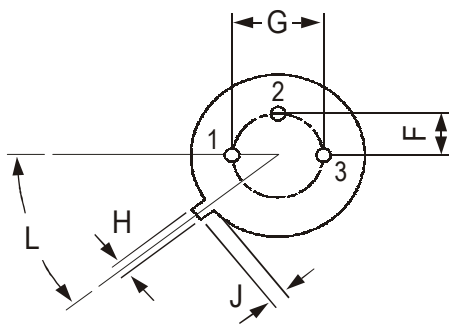
*Pulse Test: Pulse Width $\leq 200\mu s$, Duty Cycle $\leq 1.0\%$

TO-39 Metal Can Package



All dimensions are in mm

DIM	MIN	MAX
A	8.50	9.39
B	7.74	8.50
C	6.09	6.60
D	0.40	0.53
E	—	0.88
F	2.41	2.66
G	4.82	5.33
H	0.71	0.86
J	0.73	1.02
K	12.70	—
L	42 DEG	48 DEG



PIN CONFIGURATION

- 1. EMITTER
- 2. BASE
- 3. COLLECTOR

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-39	500 pcs/polybag	540 gm/500 pcs	3" x 7.5" x 7.5"	20K	17" x 15" x 13.5"	32K	40 kgs

Disclaimer

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