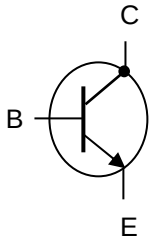
NPN BSX62-BSX63

SWITCHING TRANSISTORS

The BSX62 and BSX63 are NPN switching transistors mounted in TO-39 metal package.
They are intended for use in medium power switching.
High current and low voltage.
Compliance to RoHS.



ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value		Unit
			BSX62	BSX63	
V_{CEO}	Collector-Emitter Voltage	I_B =0	40	60	V
V_{CBO}	Collector-Base Voltage	I_E =0	60	80	V
V_{EBO}	Emitter-Base Voltage	I_C =0	5		V
I_C	Collector Current		3		A
I_{CM}	Collector Peak Current		3		A
I_{BM}	Base Peak Current		500		mA
P_D	Total Power Dissipation	T_{amb} = 25°	5		W
T_J	Junction Temperature		200		°C
T_{amb}	Operating ambient temperature		-65 to +150		
T_{Stg}	Storage Temperature range		-65 to +150		

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R_{thJ-a}	Thermal Resistance, Junction to ambient	200	°C/W
R_{thJ-c}	Thermal Resistance, Junction to case	28	°C/W

SWITCHING TIMES

Symbol	Ratings		Value	Unit
t_{on}	Turn-on time	I_{Con} = 1 A; I_{Bon} = 50 mA	300	ns
t_{off}	Turn-off time	I_{Boff} = -50 mA	1.5	µs

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ELECTRICAL CHARACTERISTICS

Tj=25°C unless otherwise specified

Symbol	Ratings	Test Condition(s)		Min	Typ	Max	Unit
I_{CBO}	Collector Cutoff Current	V_{CB} = 40 V, I_E =0	BSX62	-	-	100	nA
		V_{CB} = 60 V, I_E =0	BSX63				
		V_{CB} = 40 V, I_E = 0 T_j = 150°C	BSX62	-	-	100	µA
		V_{CB} = 60 V, I_E =0 T_j = 150°C	BSX63				
I_{EBO}	Emitter Cutoff Current	V_{BE} = 5.0 V, I_C =0		-	-	100	nA
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage	I_C = 1 A, I_B = 100 mA		-	-	0.7	V
		I_C = 2 A, I_B = 200 mA		-	-	0.8	
$V_{BE(SAT)}$	Base-Emitter saturation Voltage	I_C = 1 A, I_B = 100 mA		-	-	1.2	V
		I_C = 2 A, I_B = 200 mA		-	-	1.3	
V_{BE}	Base-Emitter Voltage	I_C = 100 mA, V_{CE} = 1 V		-	-	1	V
		I_C = 1 A, V_{CE} = 1 V		1	-	1.2	
		I_C = 2 A, V_{CE} = 5 V		-	-	1.3	
h_{FE}	DC Current Gain	I_C = 100 m V_{CE} = 1 V	BSX62/10	-	110	-	-
			BSX63/10				
			BSX62/16	-	180	-	
			BSX63/16				
		I_C = 1 A V_{CE} = 1 V	BSX62/10	63	100	160	
			BSX63/10				
			BSX62/16	100	160	250	
			BSX63/16				
		I_C = 2 A V_{CE} = 1 V	BSX62/10	-	70	-	
			BSX63/10				
			BSX62/16	-	120	-	
			BSX63/16				
f_T	Transition frequency	I_C = 200 mA, V_{CE} = 10 V f = 100MHz		30	70	-	MHz
C_C	Collector capacitance	I_E = i_e =0, V_{CB} = 10 V f = 1MHz		-	-	70	pF

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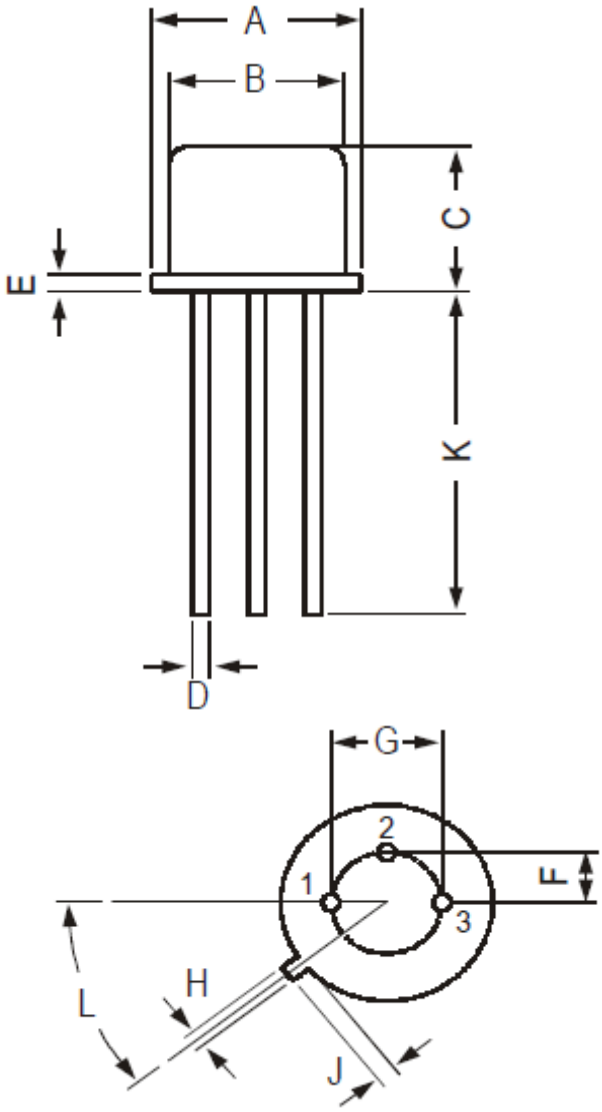
MECHANICAL DATA CASE TO-39

DIMENSIONS (mm)		
	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°	48°



Pin 1 :	Emitter
Pin 2 :	Base
Pin 3 :	Collector
Case :	Collector

Revised August 2012