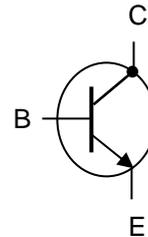


NPN BSX62-BSX63

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 $T_{amb} = 25^\circ$	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 $I_{Con} = 1\text{ A}; I_{Bon} = 50\text{ mA}$	300	ns
t_{off}	Turn-off time $I_{Boff} = -50\text{ mA}$	1.5	µs

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ELECTRICAL CHARACTERISTICS

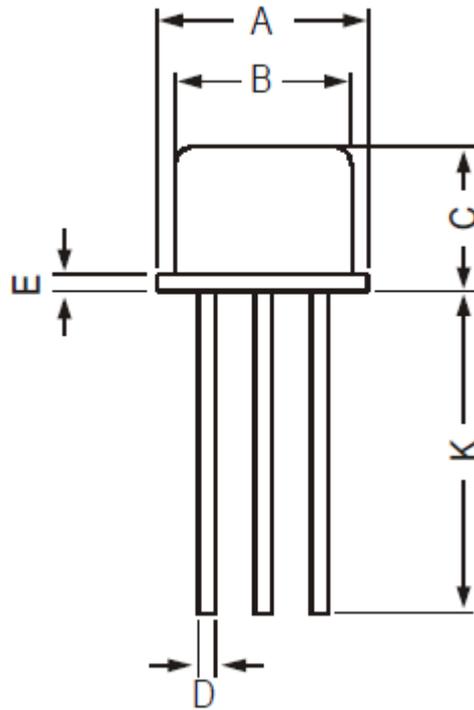
T_j=25°C unless otherwise specified

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
I_{CBO}	Collector Cutoff Current	V _{CB} = 40 V, I _E = 0	-	-	100	nA
		BSX62				
		V _{CB} = 60 V, I _E = 0	BSX63			
		V _{CB} = 40 V, I _E = 0 T _j = 150°C	BSX62	-	-	100
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 mA V _{CE} = 1 V	BSX62/10	-	110	-
			BSX63/10			
			BSX62/16			
			BSX63/16			
		I _C = 1 A V _{CE} = 1 V	BSX62/10	63	100	160
			BSX63/10			
			BSX62/16			
			BSX63/16			
		I _C = 2 A V _{CE} = 1 V	BSX62/10	-	70	-
			BSX63/10			
			BSX62/16			
			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

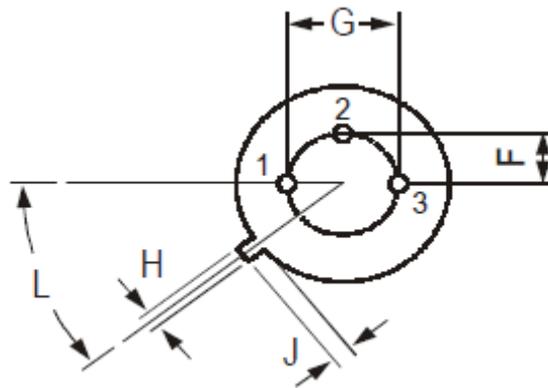
NPN BSX62-BSX63

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



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