

Technical Data

TRANSISTOR



maximum ratings

Voltage, Collector to Base (VCBO)	80.0	V	NO.	BSX63-10
Voltage, Collector to Emitter (VCE)	60.0	V	TYPE	NPN
Voltage, Emitter to Base (VEBO)	5.0	V		
Collector Current (IC)	3.0	A		
Base Current (IB)	0.5	A	CASE	TO-39
Max. Power Dissipation (PT) at TC = 25 °C	5.0	W		
Max. Thermal Resistance (Rth J-C)	35.0	°C/W		
Max. Junction Temperature (TJ)	200.0	°C		

PERFORMANCE CHARACTERISTICS at $T_c = 25^\circ\text{C}$, unless otherwise noted

NO.	SYMBOL	CONDITIONS	MIN.	MAX.	UNITS
1.	ICES	VCE = 60.0 V	-	100.0	nA
2.	ICES	VCE = 60.0 V, TC = 150.0 °C	-	100.0	μA
3.	BVCEO	IC = 100.0 mA (1)	60.0	-	V
4.	BVEBO	IE = 10.0 μA	5.0	-	V
5.	BVCBO	IC = 100.0 μA	80.0	-	V
6.	hFE	IC = 0.1 A, VCE = 1.0 V	30.0	-	-
7.	hFE	IC = 1.0 A, VCE = 1.0 V (1)	63.0	160.0	-
8.	hFE	IC = 2.0 A, VCE = 5.0 V (1)	25.0	-	-
9.	VBE(ON)	IC = 1.0 A, VCE = 1.0 V (1)	-	1.2	V
10.	VBE(ON)	IC = 2.0 A, VCE = 5.0 V (1)	-	1.3	V
11.	VCE(SAT)	IC = 1.0 A, IB = 0.1 A (1)	-	0.7	V
12.	VCE(SAT)	IC = 2.0 A, IB = 0.2 A (1)	-	0.8	V
13.	VBE(SAT)	IC = 1.0 A, IB = 0.1 A (1)	-	1.2	V
14.	VBE(SAT)	IC = 2.0 A, IB = 0.2 A (1)	-	1.3	V
15.	fT	IC = 0.2 A, VCE = 10.0 V	30.0	-	MHz
16.	CCBP	VCBO = 10.0 V	-	70.0	pF
17.	tON	IC = 1.0 A, IB = 50.0 mA	-	0.3	μs
18.	tOFF	IC = 1.0 A, IB = 50.0 mA	-	1.5	μs
19.					
20.					

Notes (1)pulse-tested $t_p \leq 300 \mu\text{s}$, duty cycle $\leq 2\%$

DIMENSIONS
in mm

Marking BSX63-10
Customer GENERAL PURPOSE

