

Technical Data

TRANSISTOR

maximum ratings

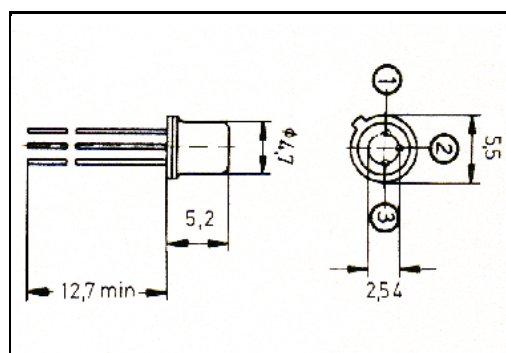
Voltage, Collector to Base (VCBO)	45.0	V	NO.	BCY59-8
Voltage, Collector to Emitter (VCE)	45.0	V	TYPE	NPN
Voltage, Emitter to Base (VEBO)	7.0	V		
Collector Current (IC)	0.2	A		
Base Current (IB)	0.05	A	CASE	TO-18
Max. Power Dissipation (PT) at TC = 45 °C	1.0	W		
Max. Thermal Resistance (Rth J-C)	155.0	°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.	BVCEO	IC = 2.0 mA (1)	45.0	-	V
2.	BVEBO	IE = 1.0 μA	7.0	-	V
3.	ICES	VCE = 45.0 V	-	10.0	nA
4.	ICES	VCE = 45.0 V, TJ = 150.0° C	-	10.0	μA
5.	IEBO	VEB = 5.0 V	-	10.0	nA
6.	hFE	IC = 10.0 μA , VCE = 5.0 V (1)	20.0	-	-
7.	hFE	IC = 2.0 mA, VCE = 5.0 V (1)	180.0	310.0	-
8.	hFE	IC = 10.0 mA, VCE = 1.0 V (1)	120.0	400.0	-
9.	hFE	IC = 100.0 mA, VCE = 1.0 V (1)	45.0	-	-
10.	VCE(SAT)	IC = 10.0 mA, IB = 0.25 mA (1)	-	0.35	V
11.	VCE(SAT)	IC = 100.0 mA, IB = 2.5 mA (1)	-	0.7	V
12.	VBE(SAT)	IC = 10.0 mA, IB = 0.25 mA (1)	-	0.85	V
13.	VBE(SAT)	IC = 100.0 mA, IB = 2.5 mA (1)	-	1.2	V
14.	fT	IC = 10.0 mA, VCE = 5.0 V	150.0	-	MHz
15.	Cobo	VCB = 10.0 V	-	6.0	pF
16.	NF	IC = 0.2 mA, VCE = 5.0 V, f = 1.0 kHz	-	6.0	dB
17.					
18.					
19.					
20.					

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

DIMENSIONS
in mm



Marking BCY59-8
Customer GENERAL PURPOSE