Technical Data
TRANSISTOR

DISCRETE SEMICONDUCTOR INDUSTRIES

maximum ratings

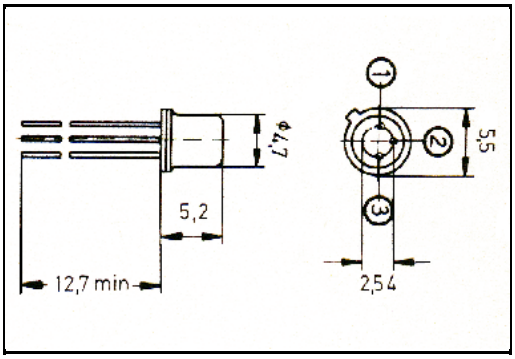
Voltage, Collector to Base (VCBO)	45.0	V	NO.	BCY59-9
Voltage, Collector to Emitter (VCE)	45.0	V	TYPE	NPN
Voltage, Emitter to Base (VEBO)	7.0	V		
Collector Current (IC)	0.2	A		
Base Current (IB)	0.05	A	CASE	TO-18
Max. Power Dissipation (PT) at TC = 45 °C	1.0	W		
Max. Thermal Resistance (Rth J-C)	155.0	°C/W		
Max. Junction Temperature (TJ)	200.0	°C		

PERFORMANCE CHARACTERISTICS at T_C = 25°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)	40.0	-	-
7.	hFE	IC = 2.0 mA, VCE = 5.0 V	(1)	250.0	460.0	-
8.	hFE	IC = 10.0 mA, VCE = 1.0 V	(1)	160.0	630.0	-
9.	hFE	IC = 100.0 mA, VCE = 1.0 V	(1)	60.0	-	-
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, f = 100.0 MHz		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 tp ≤ 300 µs, duty cycle ≤ 2 %

DIMENSIONS in mm



Marking BCY59-9

Customer GENERAL PURPOSE