Technical Data
TRANSISTOR

DISCRETE SEMICONDUCTOR INDUSTRIES

maximum ratings

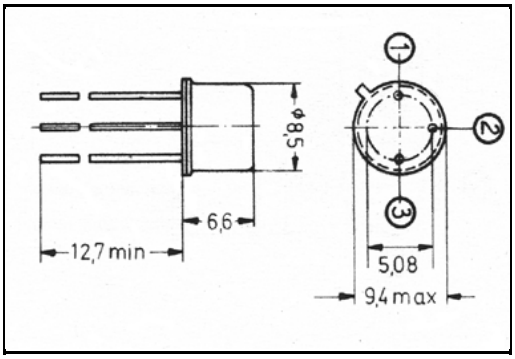
Voltage, Collector to Base (VCBO)	140.0	V	NO.	2N3019S-M
Voltage, Collector to Emitter (VCE)	80.0	V	TYPE	NPN
Voltage, Emitter to Base (VEBO)	7.0	V		
Collector Current (IC)	1.0	A		
Base Current (IB)		A	CASE	TO-39
Max. Power Dissipation (PT) at TC = 25 °C	5.0	W		MIL-S-19500
Max. Thermal Resistance (Rth J-C)	35.0	°C/W		BURN-IN 48h/125°C
Max. Junction Temperature (TJ)	200.0	°C		

PERFORMANCE CHARACTERISTICS at T_C = 25°C, unless otherwise noted

NO.	SYMBOL	CONDITIONS		MIN.	MAX.	UNITS
1.	BVCBO	IC = 100.0 µA		140.0	-	V
2.	BVCEO	IC = 30.0 mA	(1)	80.0	-	V
3.	BVEBO	IE = 100.0 µA		7.0	-	V
4.	hFE	IC = 0.1 mA, VCE = 10.0 V	(1)	50.0	-	-
5.	hFE	IC = 10.0 mA, VCE = 10.0 V	(1)	90.0	-	-
6.	hFE	IC = 150.0 mA, VCE = 10.0 V	(1)	100.0	300.0	-
7.	hFE	IC = 500.0 mA, VCE = 10.0 V	(1)	50.0	-	-
8.	hFE	IC = 1000.0 mA, VCE = 10.0 V	(1)	15.0	-	-
9.	VCE(SAT)	IC = 150.0 mA, IB = 15.0 mA		-	0.2	V
10.	VCE(SAT)	IC = 500.0 mA, IB = 50.0 mA	(1)	-	0.5	V
11.	VBE(SAT)	IC = 150.0 mA, IB = 15.0 mA	(1)	-	1.1	V
12.	fT	IC = 50.0 mA, VCE = 10.0 V, f = 20.0 MHz		100.0	-	MHz
13.	Cobo	VCB = 10.0 V		-	12.0	pF
14.						
15.						
16.						
17.						
18.						
19.						
20.						

Notes (1)pulse-tested tp ≤ 300 µs, duty cycle ≤ 2 %

DIMENSIONS in mm



Marking 2N3019S-M + GREEN DOT

Customer GENERAL PURPOSE