TRANSYS ELECTRONICS LIMITED

2N4124

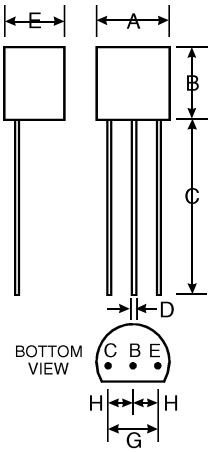
NPN SMALL SIGNAL TRANSISTOR

Features

- For General Purpose Switching and Amplifier Applications
- Especially Suitable for AF Driver and Low Power Output Stages

Mechanical Data

- Case: TO-92, Plastic
- Leads: Solderable per MIL STD 202, Method 208
- Pin Connections: See Diagram
- Approx. Weight: 0.18 grams



TO-92		
Dim	Min	Max
A	4.32	4.83
B	4.32	4.78
C	12.50	15.62
D	0.36	0.56
E	3.15	3.94
G	2.29	2.79
H	1.14	1.40
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	25	V
Collector-Base Voltage	V_{CBO}	30	V
Emitter Base-Voltage	V_{EBO}	5	V
Collector Current	I_C	200	mA
Peak Collector Current	I_{CM}	800	mA
Base Current	I_B	50	mA
Power Dissipation (Note 1)	P_d	625	mW
Thermal Resistance, Junction to Ambient (Note 1)	R_{JA}	200	K/W
Operating and Storage Temperature Range	T_j, T_{STG}	–65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
DC Current Gain	h_{FE}	120 —	— 60	360 —	—	V_{CE} = 1.0V, I_C = 2.0mA V_{CE} = 1.0V, I_C = 50mA
Collector-Base Cutoff Current	I_{CBO}	—	—	50	nA	V_{CB} = 20V
Emitter-Base Cutoff Current	I_{EBO}	—	—	50	nA	V_{EB} = 3.0V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	—	—	0.3	V	I_C = 50mA, I_B = 5.0mA
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	—	—	0.95	V	I_C = 50mA, I_B = 5.0mA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	25	—	—	V	I_C = 1.0mA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	30	—	—	V	I_C = 10µA
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5.0	—	—	V	I_E = 10µA
Gain Bandwidth Product	f_T	—	200	—	MHz	V_{CE} = 5.0V, I_C = 10mA, f = 50MhZ
Collector-Base Capacitance	C_{CBO}	—	—	12	pF	V_{CB} = 10V, f = 1.0MHz

Notes: 1. Valid provided that leads are kept at ambient temperature at a distance of 2.0mm from case.