

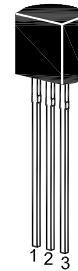
2SA1174

PNP Silicon Epitaxial Planar Transistor

Audio frequency low noise amplifier.

The transistor is subdivided into three group, P, F and E, according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.



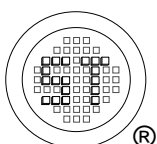
1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector -Base Voltage	$-V_{CBO}$	120	V
Collector -Emitter Voltage	$-V_{CEO}$	120	V
Emitter- Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	50	mA
Base Current	$-I_B$	10	mA
Power Dissipation	P_{tot}	300	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit	
DC Current Gain at $-V_{CE} = 6\text{ V}$, $-I_C = 1\text{ mA}$ at $-V_{CE} = 6\text{ V}$, $-I_C = 0.1\text{ mA}$ Current Gain Group	P	h_{FE}	200	400	-
	F	h_{FE}	300	600	-
	E	h_{FE}	400	800	-
	E	h_{FE}	150	-	-
Collector Base Cutoff Current at $-V_{CB} = 120\text{ V}$	$-I_{CBO}$	-	50	nA	
Emitter Base Cutoff Current at $-V_{EB} = 5\text{ V}$	$-I_{EBO}$	-	50	nA	
Collector Emitter Cutoff Current at $-V_{CE} = 100\text{ V}$	$-I_{CEO}$	-	1	μA	
Collector Emitter Saturation Voltage at $-I_C = 10\text{ mA}$, $-I_B = 1\text{ mA}$	$-V_{CE(sat)}$	-	0.3	V	
Base Emitter Voltage at $-V_{CE} = 6\text{ V}$, $-I_C = 1\text{ mA}$	$-V_{BE}$	0.55	0.65	V	
Gain Bandwidth Product at $-V_{CE} = 6\text{ V}$, $I_E = 1\text{ mA}$	f_T	50	-	MHz	
Output Capacitance at $-V_{CB} = 30\text{ V}$, $f = 1\text{ MHz}$	C_{OB}	-	3	pF	



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ISO/TS 16949 : 2009
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