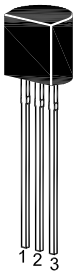
2SA1174

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 °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	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

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