

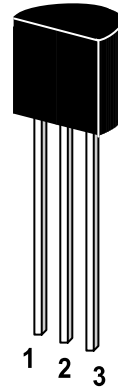
ST 2SA1174

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.



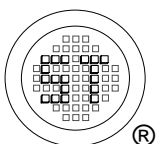
1. Emitter 2. Collector 3. Base

TO-92 Plastic Package

Weight approx. 0.19g

Absolute Maximum Ratings (Ta=25°C)

	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_S	-55 to +150	°C



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



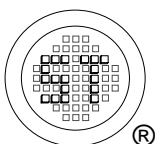
ISO 9001:2000
Certificate No. 0506098

Dated : 07/12/2002

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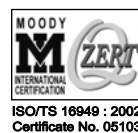
Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE}=6\text{V}$, $-I_C=1\text{mA}$					
Current Gain Group P	h_{FE}	200	-	400	-
F	h_{FE}	300	-	600	-
E	h_{FE}	400	-	800	-
at $-V_{CE}=6\text{V}$, $-I_C=0.1\text{mA}$	h_{FE}	150	500	-	-
Collector Cutoff Current at $-V_{CB}=120\text{V}$	$-I_{CBO}$	-	-	0.05	μA
Emitter Cutoff Current at $-V_{EB}=5\text{V}$	$-I_{EBO}$	-	-	0.05	μA
Collector Cutoff Current at $-V_{CE}=100\text{V}$	$-I_{CEO}$	-	-	1	μA
Gain Bandwidth Product at $-V_{CE}=6\text{V}$, $I_E=1\text{mA}$	f_T	50	100	-	MHz
Noise Voltage	NV	-	25	40	mV
Output Capacitance at $-V_{CB}=30\text{V}$, $f=1\text{MHz}$	C_{OB}	-	2	3	pF
Base Emitter Voltage at $-V_{CE}=6\text{V}$, $-I_C=1\text{mA}$	$-V_{BE}$	0.55	0.61	0.65	V
Collector Saturation Voltage at $-I_C=10\text{mA}$, $-I_B=1\text{mA}$	$-V_{CE(sat)}$	-	0.09	0.3	V



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