

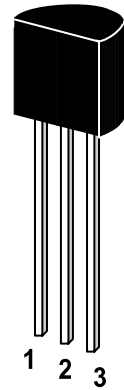
ST 2SC2784

NPN Silicon Epitaxial Planar Transistor

Audio frequency low noise amplifier.

The transistor is subdivided into four groups, P, F, E and U according to its DC current gain.

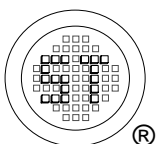
On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Collector 3. Base
TO-92 Plastic Package
Weight approx. 0.19g

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

	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	$^\circ\text{C}$
Storage Temperature Range	T_S	-55 to +150	$^\circ\text{C}$



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. 71116



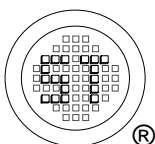
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Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	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	-
U	h_{FE}	600	-	1200	-
at $V_{CE}=6\text{V}$, $I_C=0.1\text{mA}$	h_{FE}	150	580	-	-
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	110	-	MHz
Noise Voltage	NV	-	25	40	mV
Output Capacitance at $V_{CB}=30\text{V}$, $f=1\text{MHz}$	C_{OB}	-	1.6	2.5	pF
Base Emitter Voltage at $V_{CE}=6\text{V}$, $I_C=1\text{mA}$	V_{BE}	0.55	0.59	0.65	V
Collector Saturation Voltage at $I_C=10\text{mA}$, $I_B=1\text{mA}$	$V_{CE(sat)}$	-	0.07	0.3	V



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