

# ST 2SC2784

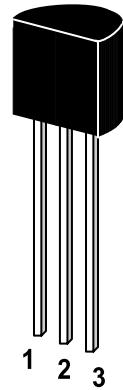
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## NPN Silicon Epitaxial Planar Transistor

Audio frequency low noise amplifier.

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

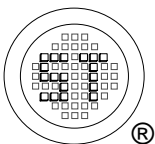
On special request, these transistors can be manufactured in different pin configurations.



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

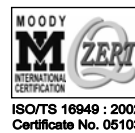
### Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

	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	$^\circ\text{C}$



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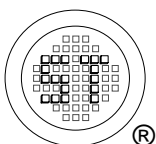
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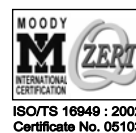
## Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

	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	$\mu\text{A}$
Emitter Cutoff Current at $V_{EB}=5\text{V}$	$I_{EBO}$	-	-	0.05	$\mu\text{A}$
Collector Cutoff Current at $V_{CE}=100\text{V}$	$I_{CEO}$	-	-	1	$\mu\text{A}$
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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