

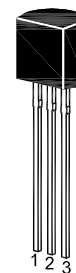
# ST 2SC828 / 828A

## NPN Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

These transistors are subdivided into three groups Q, R and S according to their DC current gain.

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



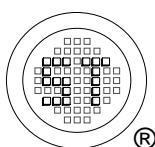
1. Emitter 2. Collector 3. Base  
TO-92 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	30 45	V
Collector Emitter Voltage	$V_{CEO}$	25 45	V
Emitter Base Voltage	$V_{EBO}$	7	V
Collector Current	$I_C$	50	mA
Peak Collector Current	$I_{CM}$	100	mA
Power Dissipation	$P_{tot}$	400	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.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE} = 5\text{ V}$ , $I_C = 2\text{ mA}$	Current Gain Group Q	$h_{FE}$	130	-	280	-
	R	$h_{FE}$	180	-	360	-
	S	$h_{FE}$	260	-	520	-
Collector Base Breakdown Voltage at $I_C = 10\text{ }\mu\text{A}$	2SC828	$V_{CBO}$	30	-	-	V
	2SC828A		45	-	-	
Collector Emitter Breakdown Voltage at $I_C = 2\text{ mA}$	2SC828	$V_{CEO}$	25	-	-	V
	2SC828A		45	-	-	
Emitter Base Breakdown Voltage at $I_C = 10\text{ }\mu\text{A}$	$V_{EBO}$	7	-	-	V	
Base Emitter Voltage at $I_C = 10\text{ mA}$ , $V_{CE} = 5\text{ V}$	$V_{BE}$	-	-	0.8	V	
Gain Bandwidth Product at $I_C = 2\text{ mA}$ , $V_{CE} = 10\text{ V}$	$f_T$	-	220	-	MHz	



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