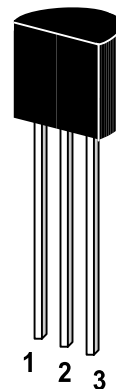


# ST 2SC828 / 828A

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.



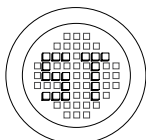
1. Emitter 2. Collector 3. Base

TO-92 Plastic Package  
Weight approx. 0.19g

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

	Symbol	Value		Unit
		ST 2SC828	ST 2SC828A	
Collector Base Voltage	$V_{CBO}$	30	45	V
Collector Emitter Voltage	$V_{CEO}$	25	45	V
Emitter Base Voltage	$V_{EBO}$	7		V
Peak Collector Current	$I_{CM}$	100		mA
Collector Current	$I_C$	50		mA
Power Dissipation	$P_{tot}$	400		mW
Junction Temperature	$T_j$	150		$^\circ\text{C}$
Storage Temperature Range	$T_s$	-55 to +150		$^\circ\text{C}$

G S P FORM A IS AVAILABLE



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**РАДИОТЕХ-ТРЕЙД**

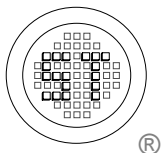
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# ST 2SC828 / 828A

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

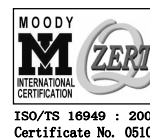
	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $I_C=2\text{mA}$ , $V_{CE}=5\text{V}$  Current Gain Group	Q				
	$h_{FE}$	130	-	280	-
	R	180	-	360	-
	S	260	-	520	-
Collector Base Breakdown Voltage at $I_C=10\mu\text{A}$	ST 2SC828	$V_{(BR)CBO}$	30	-	V
	ST 2SC828A	$V_{(BR)CBO}$	45	-	V
Collector Emitter Breakdown Voltage at $I_C=2\text{mA}$	ST 2SC828	$V_{(BR)CEO}$	25	-	V
	ST 2SC828A	$V_{(BR)CEO}$	45	-	V
Emitter Base Breakdown Voltage at $I_E=10\mu\text{A}$	$V_{(BR)EBO}$	7	-	-	V
Collector Saturation Voltage at $I_C=50\text{mA}$ , $I_B=5\text{mA}$	$V_{CE(sat)}$	-	0.14	-	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
Noise Figure at $V_{CE}=5\text{V}$ , $I_E=0.2\text{mA}$ , $R_G=2\text{k}\Omega$ , $f=1\text{kHz}$	NF	-	6	-	dB

**G S P FORM A IS AVAILABLE**



**SEMTECH ELECTRONICS LTD.**

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



Dated : 07/12/2002