

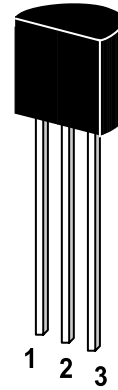
ST 2SC828 / 828A

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.



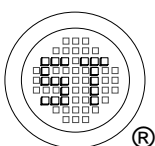
1. Emitter 2. Collector 3. Base

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		$^\circ\text{C}$



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



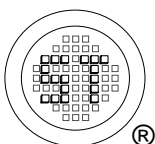
ISO 9001:2000
Certificate No. 0506098

Dated : 07/12/2002

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



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