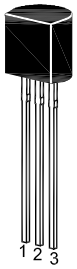
ST 28S

NPN Silicon Epitaxial Planar Transistor

for switching and amplifier applications. Especially suitable for AF-driver stages and low power output stages.

The transistor is subdivided into one group, according to its DC current gain.



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

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	40	V
Collector Emitter Voltage	V_{CEO}	20	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current	I_C	1	A
Peak Collector Current	I_{CM}	1.25	A
Base Current	I_B	100	mA
Power Dissipation	P_{tot}	850	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V_{CE} = 1 V, I_C = 5 mA at V_{CE} = 1 V, I_C = 100 mA at V_{CE} = 1 V, I_C = 800 mA	 h_{FE} h_{FE} h_{FE}	 45 200 40	 170 - 80	 - 1000 -	 - - -
Collector Base Cutoff Current at V_{CB} = 35 V	I_{CBO}	-	-	100	nA
Emitter Base Cutoff Current at V_{BE} = 6 V	I_{EBO}	-	-	100	nA
Collector Base Breakdown Voltage at I_C = 100 µA	$V_{(BR)CBO}$	40	-	-	V
Collector Emitter Breakdown Voltage at I_C = 2 mA	$V_{(BR)CEO}$	20	-	-	V
Emitter Base Breakdown Voltage at I_E = 100 µA	$V_{(BR)EBO}$	6	-	-	V
Collector Emitter Saturation Voltage at I_C = 600 mA, I_B = 20 mA	$V_{CE(sat)}$	-	-	0.55	V
Base Emitter Saturation Voltage at I_C= 600 mA, I_B = 20 mA	$V_{BE(sat)}$	-	0.98	1.2	V
Base Emitter Voltage at I_C = 10 mA, V_{CE} = 1 V	V_{BE}	-	0.66	1.0	V
Gain Bandwidth Product at V_{CE} = 10 V, I_C = 50 mA	f_T	100	-	-	MHz
Collector Base Capacitance at V_{CB} = 10 V, f = 1 MHz	C_{ob}	-	-	9	pF