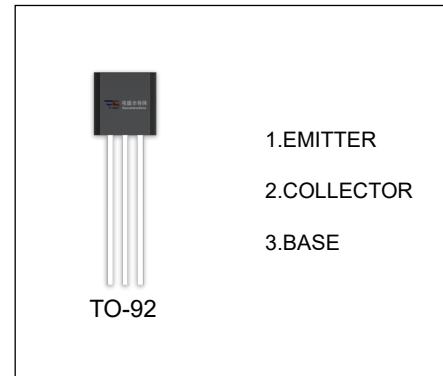


## 2SC1213 TRANSISTOR (NPN)

### FEATURES

- Low Frequency Amplifier
- Complementary Pair With 2SA673



### ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2SC1213	TO-92	Bulk	1000pcs/Bag
2SC1213-TA	TO-92	Tape	2000pcs/Box

### MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>CB0</sub>	Collector-Base Voltage	35	V
V <sub>CEO</sub>	Collector-Emitter Voltage	35	V
V <sub>EBO</sub>	Emitter-Base Voltage	4	V
I <sub>C</sub>	Collector Current -Continuous	0.5	A
P <sub>D</sub>	Collector Power Dissipation	400	mW
R <sub>θJA</sub>	Thermal Resistance from Junction to Ambient	312	°C /W
T <sub>J</sub> , T <sub>stg</sub>	Operation Junction and Storage Temperature Range	-55~+150	°C

$T_a=25\text{ }^\circ\text{C}$  unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=0.01\text{mA}, I_E=0$	35			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	35			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=0.01\text{mA}, I_C=0$	4			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=20\text{V}, I_E=0$			0.5	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=3\text{V}, I_C=0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=3\text{V}, I_C=10\text{mA}$	60		320	
	$h_{FE(2)}$	$V_{CE}=3\text{V}, I_C=500\text{mA}$	10			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=150\text{mA}, I_B=15\text{mA}$			0.6	V
Base-emitter voltage	$V_{BE}$	$V_{CE}=3\text{V}, I_C=10\text{mA}$			0.75	V

#### CLASSIFICATION OF $h_{FE(1)}$

RANK	B	C	D
RANGE	60-120	100-200	160-320