

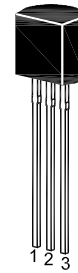
ST 2SC1213 / 2SC1213A

NPN Silicon Epitaxial Planar Transistor

Low frequency amplifier applications.

The transistor is subdivided into three groups, B, C and D, according to its DC current gain. As complementary type the PNP transistor ST 2SA673 and ST 2SA673A are recommended.

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



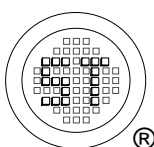
1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

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

Parameter	Symbol	Value	Unit	
Collector Base Voltage	V_{CBO}	2SC1213 2SC1213A	35 50	V
Collector Emitter Voltage		V_{CEO}	2SC1213 2SC1213A	35 50
Emitter Base Voltage	V_{EBO}		4	V
Collector Current	I_C	500	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 $V_{CE} = 3\text{ V}$, $I_C = 10\text{ mA}$ at $V_{CE} = 3\text{ V}$, $I_C = 500\text{ mA}$	Current Gain Group B	h_{FE}	60	-	120	-
	C	h_{FE}	100	-	200	-
	D	h_{FE}	160	-	320	-
		h_{FE}	10	-	-	-
Collector Base Cutoff Current at $V_{CB} = 20\text{ V}$	I_{CBO}	-	-	0.5	μA	
Collector Base Breakdown Voltage at $I_C = 10\text{ }\mu\text{A}$	$V_{(BR)CBO}$	2SC1213 2SC1213A	35 50	- -	- -	V
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$		$V_{(BR)CEO}$	2SC1213 2SC1213A	35 50	- -	- -
Emitter Base Breakdown Voltage at $I_E = 10\text{ }\mu\text{A}$	$V_{(BR)EBO}$		4	-	-	V
Collector Emitter Saturation Voltage at $I_C = 150\text{ mA}$, $I_B = 15\text{ mA}$	$V_{CE(sat)}$	-	-	0.6	V	
Base Emitter Voltage at $V_{CE} = 3\text{ V}$, $I_C = 10\text{ mA}$	V_{BE}	-	0.64	-	V	



SEMTECH ELECTRONICS LTD.
Subsidiary of Sino-Tech International (BVI) Limited

