

## 2SA1024 PNP Silicon Epitaxial Planar Transistor

for high voltage applications.

The transistor is subdivided into two groups, O and Y according to its 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

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	150	V
Collector Emitter Voltage	$-V_{CEO}$	150	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	50	mA
Emitter Current	$I_E$	50	mA
Power Dissipation	$P_{tot}$	625	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 $-V_{CE} = 5\text{ V}$ , $-I_C = 10\text{ mA}$	Current Gain Group O	$h_{FE}$	70	-	140	-
	Y	$h_{FE}$	120	-	240	-
Collector Base Cutoff Current at $-V_{CB} = 150\text{ V}$	$-I_{CBO}$	-	-	0.1	$\mu\text{A}$	
Emitter Base Cutoff Current at $-V_{EB} = 5\text{ V}$	$-I_{EBO}$	-	-	0.1	$\mu\text{A}$	
Collector Emitter Saturation Voltage at $-I_C = 10\text{ mA}$ , $-I_B = 1\text{ mA}$	$-V_{CE(sat)}$	-	-	0.8	V	
Base Emitter Voltage at $-V_{CE} = 5\text{ V}$ , $-I_C = 30\text{ mA}$	$-V_{BE}$	-	-	0.9	V	
Gain Bandwidth Product at $-V_{CE} = 30\text{ V}$ , $-I_C = 10\text{ mA}$	$f_T$	-	120	-	MHz	
Output Capacitance at $-V_{CB} = 10\text{ V}$ , $f = 1\text{ MHz}$	$C_{OB}$	-	-	5	pF	