

## 2SC5345 NPN Silicon Epitaxial Planar Transistor

RF amplifier applications.

The transistor is subdivided into three groups, R, 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  
Weight approx. 0.19g

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	30	V
Collector Emitter Voltage	$V_{CEO}$	20	V
Emitter Base Voltage	$V_{EBO}$	4	V
Collector Current	$I_C$	20	mA
Collector Dissipation	$P_{tot}$	500	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_S$	-55 to +150	$^\circ\text{C}$

### Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE}=6\text{V}$ , $I_C=1\text{mA}$	R	$h_{FE}$	40	-	80	-
	O	$h_{FE}$	70	-	140	-
	Y	$h_{FE}$	120	-	240	-
Collector Base Breakdown Voltage at $I_C=10\mu\text{A}$	$V_{CBO}$	30	-	-	V	
Collector Emitter Breakdown Voltage at $I_C=5\text{mA}$	$V_{CEO}$	20	-	-	V	
Emitter Base Breakdown Voltage at $I_E=10\mu\text{A}$	$V_{EBO}$	4	-	-	V	
Collector Cutoff Current at $V_{CB}=30\text{V}$	$I_{CBO}$	-	-	0.5	$\mu\text{A}$	
Emitter Cutoff Current at $V_{EB}=4\text{V}$	$I_{EBO}$	-	-	0.5	$\mu\text{A}$	
Collector Emitter Saturation Voltage at $I_C=10\text{mA}$ , $I_B=1\text{mA}$	$V_{CE(sat)}$	-	-	0.3	V	
Transition Frequency at $V_{CE}=6\text{V}$ , $I_E=-1\text{mA}$	$f_T$	-	550	-	MHz	
Collector Output Capacitance at $V_{CB}=6\text{V}$ , $f=1\text{MHz}$	$C_{OB}$	-	1.4	-	pF	