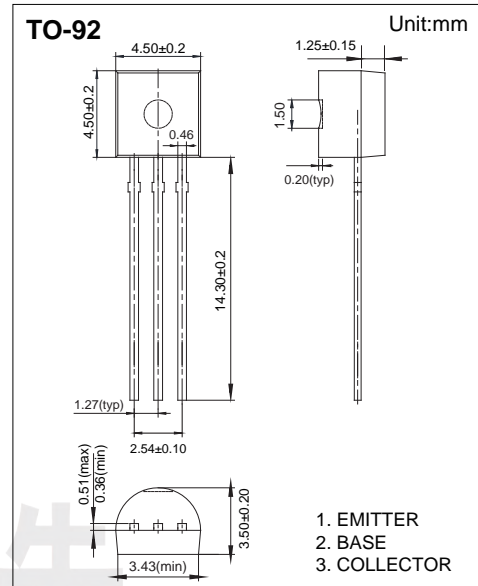


# Transistor

## NPN Transistors 2SC1008

### ■ Features

- Collector current:  $I_c=0.7A$
- General Purpose Switching and Amplification



### ■ Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	80	V
Collector - Emitter Voltage	$V_{CE0}$	60	
Emitter - Base Voltage	$V_{EB0}$	8	
Collector Current - Continuous	$I_c$	0.7	A
Collector Power Dissipation	$P_c$	0.8	W
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	156	$^\circ C/W$
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature	$T_{stg}$	-55 to 150	

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### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collecto- base breakdown voltage	V <sub>CB0</sub>	I <sub>C</sub> = 100 μA, I <sub>E</sub> =0	80			V
Collector- emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> = 10 mA, I <sub>B</sub> =0	60			
Emitter - base breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> = 10 μA, I <sub>C</sub> =0	8			
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = 60 V, I <sub>E</sub> =0			0.1	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 5V, I <sub>C</sub> =0			0.1	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =500 mA, I <sub>B</sub> = 50mA			0.4	V
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =500 mA, I <sub>B</sub> = 50mA			1.1	
DC current gain	h <sub>FE</sub>	V <sub>CE</sub> = 2V, I <sub>C</sub> = 50mA	40		400	
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>C</sub> =0, f=1MHz		8		pF
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 10V, I <sub>C</sub> = 50mA	30			MHz

### ■ Classification of h<sub>FE</sub>

Rank	R	O	Y	G
Range	40-80	70-140	120-240	200-400

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### Typical Characteristics

