

2SC4002 NPN Silicon Triple Diffused Planar Transistor

for High-Voltage Driver Applications.

The transistor is subdivided into two groups, D and E, 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. 0.18g

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	400	V
Collector Emitter Voltage	V_{CEO}	400	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	200	mA
Collector Current (Pulse)	I_{CP}	400	mA
Power Dissipation	P_{tot}	600	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 $V_{CE}=10\text{V}$, $I_C=50\text{mA}$					-
Current Gain Group	D	60	-	120	-
	E	100	-	200	-
Collector Cutoff Current at $V_{CB}=300\text{V}$	I_{CBO}	-	-	0.1	μA
Emitter Cutoff Current at $V_{EB}=4\text{V}$	I_{EBO}	-	-	0.1	μA
Collector Emitter Saturation Voltage at $I_C=50\text{mA}$, $I_B=5\text{mA}$	$V_{CE(sat)}$	-	-	0.6	V
Base Emitter Saturation Voltage at $I_C=50\text{mA}$, $I_B=5\text{mA}$	$V_{BE(sat)}$	-	-	1.0	V
Gain Bandwidth Product at $V_{CE}=30\text{V}$, $I_C=10\text{mA}$	f_T	-	70	-	MHz