

2SC1740 NPN Silicon Epitaxial Planar Transistor

for switching and AF amplifier applications.

The transistor is subdivided into four groups Q, R, S 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. 0.19g

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	60	V
Collector Emitter Voltage	V_{CEO}	50	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Power Dissipation	P_{tot}	300	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 $V_{CE}=6\text{V}$, $I_C=1\text{mA}$	Q	h_{FE}	120	-	270	-
	R	h_{FE}	180	-	390	-
	S	h_{FE}	270	-	560	-
	E	h_{FE}	390	-	820	-
Collector Base Breakdown Voltage at $I_C=50\mu\text{A}$	$V_{(BR)CBO}$	60	-	-	V	
Collector Emitter Breakdown Voltage at $I_C=1\text{mA}$	$V_{(BR)CEO}$	50	-	-	V	
Emitter Base Breakdown Voltage at $I_E=50\mu\text{A}$	$V_{(BR)EBO}$	5	-	-	V	
Collector Cutoff Current at $V_{CB}=60\text{V}$	I_{CBO}	-	-	0.1	μA	
Emitter Cutoff Current at $V_{EB}=5\text{V}$	I_{EBO}	-	-	0.1	μA	
Collector Saturation Voltage at $I_C=50\text{mA}$, $I_B=5\text{mA}$	$V_{CE(sat)}$	-	-	0.4	V	
Gain Bandwidth Product at $V_{CE}=12\text{V}$, $I_C=2\text{mA}$	f_T	-	180	-	MHz	
Output Capacitance at $V_{CB}=12\text{V}$, $f=1\text{MHz}$	C_{OB}	-	2	3.5	pF	