

深圳市晶泰源电子有限公司

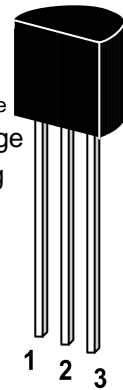
2SC2058

High-frequency Amplifier Transistor

Features

- 1) Low collector capacitance (Cob:Typ. 1.3pF)
- 2) Low rbb, high gain and excellent noise characteristics.

1. Emitter 2. Collector 3. Base
TO-92 Plastic Package
Weight approx. 0.19g



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

	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	40	V
Collector Emitter Voltage	V_{CEO}	25	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	50	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 $T_{amb}=25^\circ\text{C}$

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=6\text{V}$, $I_C=1\text{mA}$	h_{FE}	82		180	-
Collector Saturation Voltage at $I_C=10\text{mA}$, $I_B=1\text{mA}$	V_{CEsat}	-	0.1	0.3	V
Collector Cutoff Current at $V_{CB}=24\text{V}$	I_{CBO}	-	-	0.5	μA
Emitter Cutoff Current at $V_{EB}=3\text{V}$	I_{EBO}	-	-	0.5	μA
Collector Base Breakdown Voltage at $I_C=50\mu\text{A}$	$V_{(BR)CBO}$	40	-	-	V
Collector Emitter Breakdown Voltage at $I_C=1\text{mA}$	$V_{(BR)CEO}$	25	-	-	V
Emitter Base Breakdown Voltage at $I_E=50\mu\text{A}$	$V_{(BR)EBO}$	5	-	-	V
Transition Frequency at $V_{CE}=6\text{V}$, $I_E=-1\text{mA}$, $f=100\text{MHz}$	f_T	150	300	-	MHz
Output Capacitance at $V_{CB}=6\text{V}$, $f=1\text{MHz}$	Cob	-	1.3	2.2	pF

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

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=6\text{V}$, $I_C=1\text{mA}$	h_{FE}	82		180	-
Collector Saturation Voltage at $I_C=10\text{mA}$, $I_B=1\text{mA}$	V_{CEsat}	-	0.1	0.3	V
Collector Cutoff Current at $V_{CB}=24\text{V}$	I_{CBO}	-	-	0.5	μA
Emitter Cutoff Current at $V_{EB}=3\text{V}$	I_{EBO}	-	-	0.5	μA
Collector Base Breakdown Voltage at $I_C=50\text{ }\mu\text{A}$	$V_{(BR)CBO}$	40	-	-	V
Collector Emitter Breakdown Voltage at $I_C=1\text{mA}$	$V_{(BR)CEO}$	25	-	-	V
Emitter Base Breakdown Voltage at $I_E=50\text{ }\mu\text{A}$	$V_{(BR)EBO}$	5	-	-	V
Transition Frequency at $V_{CE}=6\text{V}$, $I_E=-1\text{mA}$, $f=100\text{MHz}$	f_T	150	300	-	MHz
Output Capacitance at $V_{CB}=6\text{V}$, $f=1\text{MHz}$	C_{ob}	-	1.3	2.2	pF