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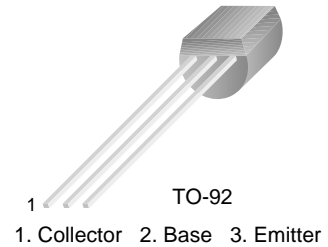
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BC184

Silicon NPN Small Signal Transistor

- $BV_{CEO} = 30V$ (Min.)
- $h_{FE} = 130$ (Min.) @ $V_{CE} = 5.0V, I_C = 100mA$



Absolute Maximum Ratings $T_C=25^\circ C$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CEO}	Collector-Emitter Voltage	30	V
V_{CBO}	Collector-Base Voltage	45	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current (DC)	100	mA
T_J, T_{STG}	Operating and Storage Junction Temperature Range	-55 ~ +150	$^\circ C$

* These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

NOTES:

- 1) These ratings are based on a maximum junction temperature of 150 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

Thermal Characteristics $T_a=25^\circ C$ unless otherwise noted

Symbol	Parameter	Max.	Units
P_D	Total Device Dissipation	350	mW
	Derate above $25^\circ C$	2.8	mW/ $^\circ C$
$R_{\theta JC}$	Thermal Resistance, Junction to Case	125	$^\circ C/W$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	$^\circ C/W$

*Device mounted on FR-4 PCB 1.6" X 1.6" X 0.06".

Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Voltage	$I_C = 10\mu\text{A}$	45			V
BV_{CEO}	Collector-Emitter Voltage	$I_C = 2\text{mA}$	30			V
BV_{EBO}	Emitter-Base Voltage	$I_E = 10\mu\text{A}$	5			V
I_{EBO}	Emitter Cut-off Current	$V_{EB} = 4\text{V}$			15	nA
I_{CBO}	Collector Cut-off Current	$V_{CB} = 30\text{V}$			15	nA
h_{FE}	DC Current Gain	$V_{CE} = 5\text{V}, I_C = 10\mu\text{A}$ $V_{CE} = 5\text{V}, I_C = 100\text{mA}$	100 130			
$V_{CE}(\text{sat})$	Collector-Emitter Saturation Voltage	$I_C = 10\text{mA}, I_B = 0.5\text{mA}$ $I_C = 100\text{mA}, I_B = 5\text{mA}$			0.25 0.6	V
$V_{BE}(\text{sat})$	Base-Emitter Saturation Voltage	$I_C = 100\text{mA}, I_B = 5\text{mA}$			1.2	V
$V_{BE}(\text{on})$	Base-Emitter On Voltage	$V_{CE} = 5\text{V}, I_C = 2\text{mA}$	0.55		0.7	V
C_{ob}	Output Capacitance	$V_{CE} = 10\text{V}, f = 1\text{MHz}$			5	pF
f_T	Current gain Bandwidth Product	$V_{CE} = 5\text{V}, I_C = 10\text{mA}, f = 100\text{MHz}$	150			MHz



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2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.
3. These ratings are based on a maximum junction temperature of 150degrees C.



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