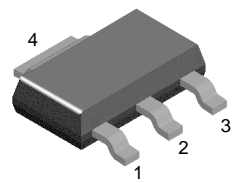


## BCP68

### NPN General Purpose Amplifier

- This device is designed for general purpose medium power amplifiers.
- Sourced from process 37.



SOT-223

1. Base 2. Collector 3. Emitter

### Absolute Maximum Ratings $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$V_{CEO}$	Collector-Emitter Voltage	20	V
$V_{CBO}$	Collector-Base Voltage	30	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current	1	A
$P_D$	Total Device Dissipation @ $T_A=25^\circ\text{C}$ - Derate above $25^\circ\text{C}$	1.5 12	Watts mW/ $^\circ\text{C}$
$T_J, T_{STG}$	Operating and Storage Junction Temperature Range	- 55 ~ +150	$^\circ\text{C}$

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

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Units
<b>Off Characteristics</b>						
$V_{(BR)CES}$	Collector-Emitter Breakdown Voltage	$I_C = 100\mu\text{A}, I_E = 0$	25			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 1\text{mA}, I_B = 0$	20			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 10\mu\text{A}, I_C = 0$	5			V
$I_{CBO}$	Collector-Base Cutoff Current	$V_{CB} = 25\text{V}, I_E = 0, T_A = 25^\circ\text{C}$ $V_{CB} = 25\text{V}, I_E = 0, T_A = 125^\circ\text{C}$			10 1	$\mu\text{A}$ mA
$I_{EBO}$	Emitter-Base Cutoff Current	$V_{EB} = 5\text{V}, I_C = 0$			10	$\mu\text{A}$
<b>On Characteristics (1)</b>						
$h_{FE}$	DC Current Gain	$I_C = 5\text{mA}, V_{CE} = 10\text{V}$ $I_C = 500\text{mA}, V_{CE} = 1\text{V}$ $I_C = 1\text{A}, V_{CE} = 1\text{V}$	50 85 60		375	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 1\text{A}, I_B = 100\text{mA}$			0.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = 1\text{A}, V_{CE} = 1\text{V}$			1	V



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