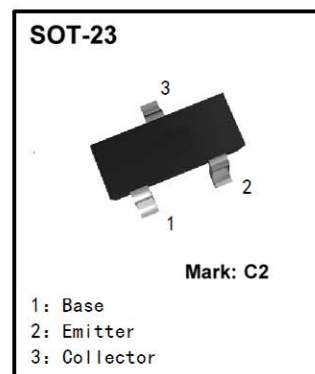


PNP General Purpose Amplifier

This device is designed for general purpose medium power amplifiers and switches requiring collector currents to 300 mA. Sourced from Process 68. See BC857A for characteristics.



● Absolute Maximum Ratings*

TA = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{CEO}	Collector-Emitter Voltage	32	V
V _{CES}	Collector-Emitter Voltage	32	V
V _{EBO}	Emitter-Base Voltage	5.0	V
I _C	Collector Current - Continuous	500	mA
T _J , T _{stg}	Operating and Storage Junction Temperature Range	-55 to +150	°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

TA = 25°C unless otherwise noted

Symbol	Characteristic	Max	Units
		*BCW30	
P _D	Total Device Dissipation Derate above 25°C	350 2.8	mW mW/°C
R _{θJA}	Thermal Resistance, Junction to Ambient	357	°C/W

*Device mounted on FR-4 PCB 40 mm X 40 mm X 1.5 mm.

• Electrical Characteristics

TA = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
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OFF CHARACTERISTICS

$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = 10 \mu A, I_E = 0$	32		V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 2.0 mA, I_B = 0$	32		V
$V_{(BR)CES}$	Collector-Emitter Breakdown Voltage	$I_C = 10 \mu A, I_E = 0$	32		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 10 \mu A, I_C = 0$	5.0		V
I_{CBO}	Collector-Cutoff Current	$V_{CB} = 32 V, I_E = 0$ $V_{CB} = 32 V, I_E = 0, T_A = +100 ^\circ C$		100 10	nA μA

ON CHARACTERISTICS

h_{FE}	DC Current Gain	$V_{CE} = 5.0 V, I_C = 2.0 mA$	215	500	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 10 mA, I_B = 0.5 mA$		0.30	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = 5.0 V, I_C = 2.0 mA$	0.60	0.75	V

SMALL SIGNAL CHARACTERISTICS

NF	Noise Figure	$V_{CE} = 5.0 V, I_C = 200 \mu A,$ $R_S = 2.0 k\Omega, f = 1.0 kHz,$ $B_W = 200 Hz$		10	dB
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