



BCP69

PNP SILICON TRANSISTOR

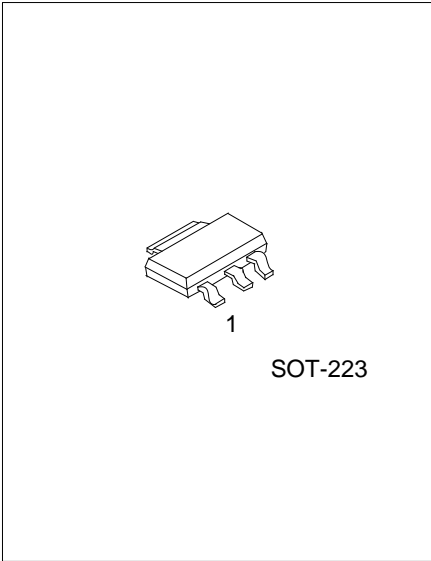
PNP MEDIUM POWER TRANSISTOR

FEATURES

- * High current (max. -1A)
- * Low voltage (max. -20V).
- * Complementary to UTC BCP68

APPLICATIONS

- * General purpose switching and amplification
- * Power applications such as audio output stages.



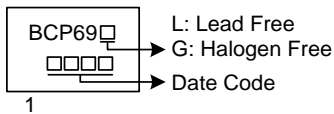
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
BCP69L-xx-AA3-R	BCP69G-xx-AA3-R	SOT-223	B	C	E	Tape Reel

Note: Pin Assignment: B: Base C: Collector E: Emitter

<p>BCP69G-xx-AA3-R</p> <p>(1) Packing Type (2) Package Type (3) Rank (4) Green Package</p>	<p>(1) R: Tape Reel (2) AA3: SOT-223 (3) xx: refer to Classification of hFE3 (4) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



■ **ABSOLUTE MAXIMUM RATING** ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage (Open Emitter)	V_{CBO}	-32	V
Collector-Emitter Voltage (Open Base)	V_{CEO}	-20	V
Emitter-Base Voltage (Open Collector)	V_{EBO}	-5	V
Collector Current (DC)	I_C	-1	A
Peak Collector Current	I_{CM}	-2	A
Peak Base Current	I_{BM}	-200	mA
Total Power Dissipation, $T_A \leq 25^{\circ}\text{C}$	P_D	1.35	W
Junction Temperature	T_J	+150	$^{\circ}\text{C}$
Operating Temperature	T_{OPR}	-45 ~ +150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-65 ~ +150	$^{\circ}\text{C}$

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ **THERMAL DATA**

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ_{JA}	91	K/W

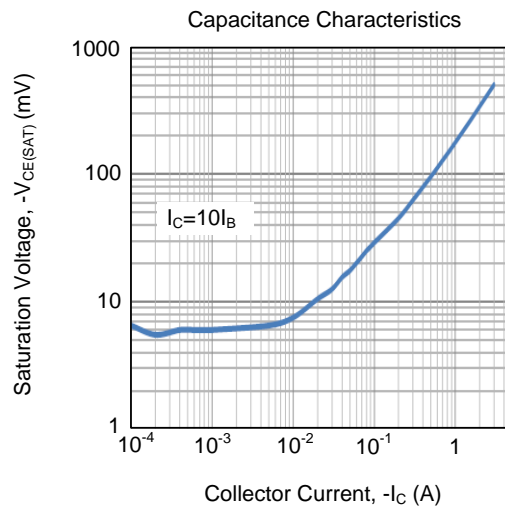
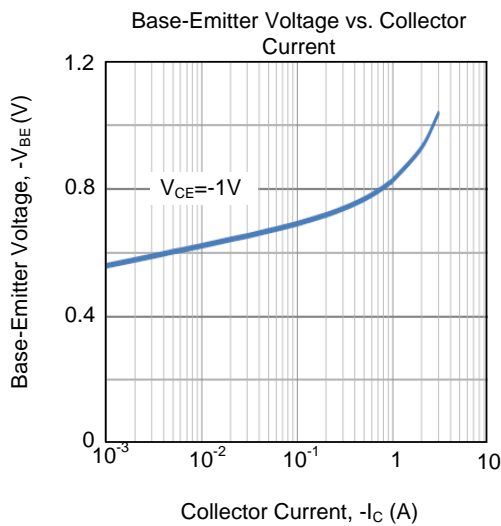
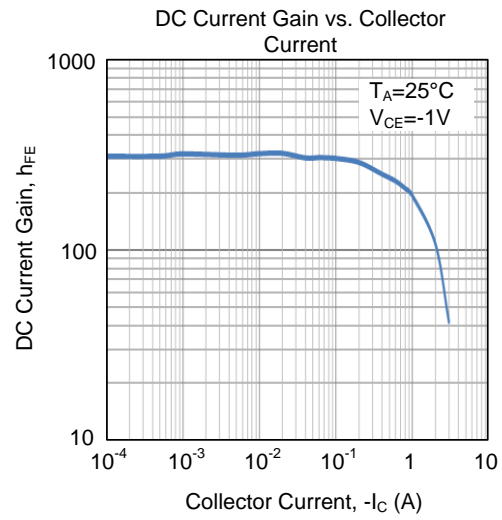
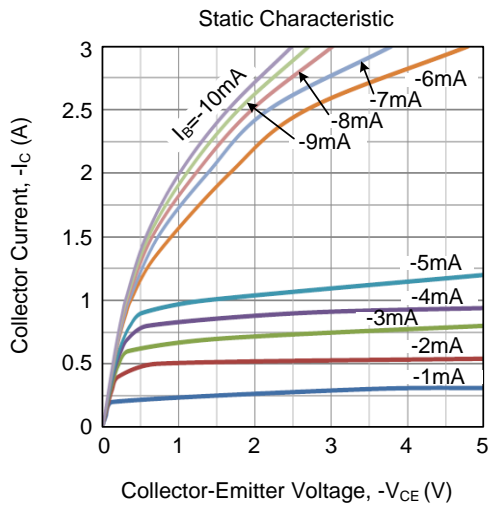
■ **ELECTRICAL CHARACTERISTICS** ($T_J = 25^{\circ}\text{C}$, unless otherwise specified.)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-1A, I_B=-100mA$			-500	mV
Base-Emitter Voltage	V_{BE}	$I_C=-5mA, V_{CE}=-10V$		-620		mV
		$I_C=-1A, V_{CE}=-1V$			-1	V
Collector Cut-off Current	I_{CBO}	$I_E=0, V_{CB}=-25V$			-100	nA
		$I_E=0, V_{CB}=-25V, T_J=150^{\circ}\text{C}$			-10	μA
Emitter Cut-off Current	I_{EBO}	$I_C=0, V_{EB}=-5V$			-100	nA
DC Current Gain	h_{FE}	$I_C=-500mA, V_{CE}=-1V$	85		375	
	h_{FE1}	$I_C=-5mA, V_{CE}=-10V$	50			
	h_{FE2}	$I_C=-1A, V_{CE}=-1V$	60			
	h_{FE3}	$I_C=-500mA, V_{CE}=-1V$	100		375	
Collector Capacitance	C_C	$I_E=i_e=0, V_{CB}=-5V, f=1\text{MHz}$		48		pF
Transition Frequency	f_T	$I_C=-10mA, V_{CE}=-5V, f=100\text{MHz}$	40			MHz
DC current gain ratio of the complementary pairs	$\frac{h_{FE1}}{h_{FE2}}$	$ I_C =0.5A, V_{CE} =1V$			1.6	

■ **CLASSIFICATION OF h_{FE3}**

RANK	16	25
RANGE	100~250	160~375

■ TYPICAL CHARACTERISTICS



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