



BCP69

PNP EPITAXIAL SILICON TRANSISTOR

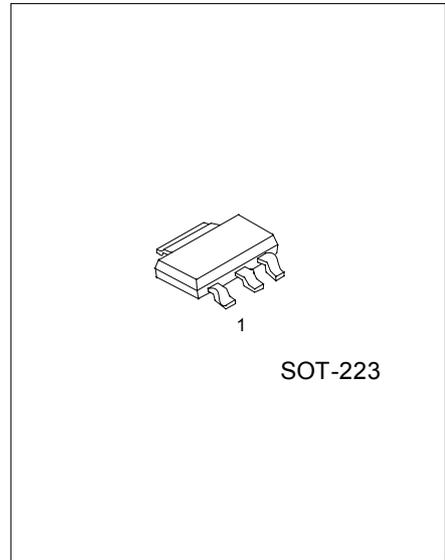
PNP MEDIUM POWER TRANSISTOR

■ FEATURES

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

■ APPLICATIONS

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



*Pb-free plating product number:BCP69L

■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
BCP69-xx-AA3-F-R	BCP69L-xx-AA3-F-R	SOT-223	B	C	E	Tape Reel

<p>BCP69L-xx-AA3-F-R</p>	<ul style="list-style-type: none"> (1)Packing Type (2)Pin Assignment (3)Package Type (4)Rank (5)Lead Plating 	<ul style="list-style-type: none"> (1) R: Tape Reel (2) refer to Pin Assignment (3) AA3: SOT-223 (4) xx: refer to Classification of h_{FE} (5) L: Lead Free Plating, Blank: Pb/Sn
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■ ABSOLUTE MAXIMUM RATING (Ta=25°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, Ta ≤ 25	P _D	1.35	W
Junction Temperature	T _J	150	
Operating Ambient Temperature	T _{OPR}	-45 ~ +150	
Storage Temperature	T _{STG}	-65 ~ +150	

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
Thermal Resistance From Junction To Ambient (Note 1)	θ _{JA}	91	K/W

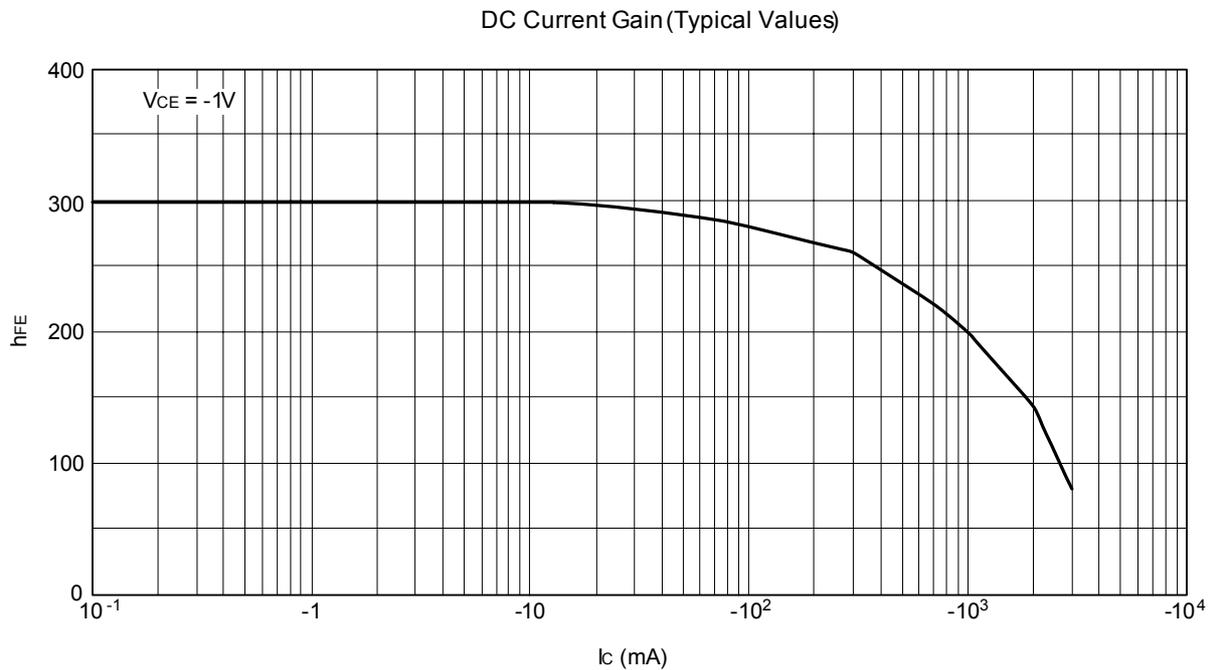
■ ELECTRICAL CHARACTERISTICS (T_J = 25 , unless otherwise specified.)

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			-10	μA
Emitter Cut-off Current	I _{EBO}	I _C = 0, V _{EB} = -5V			-100	nA
DC Current Gain	h _{FE}	I _C = -5mA, V _{CE} = -10V	50			
		I _C = -500mA, V _{CE} = -1V	85		375	
		I _C = -1A, V _{CE} = -1V	60			
Collector Capacitance	C _C	I _E = i _e = 0, V _{CB} = -5V, f = 1MHz		48		pF
Transition Frequency	f _T	I _C = -10mA, V _{CE} = -5V, f = 100MHz	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_{FE}

RANK	16	25
RANGE	100~250	160~375

■ TYPICAL CHARACTERISTICS



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