

**DESCRIPTION**

The BCP69 is available in SOT-223 Package.

FEATURE

- High Current (Max. 1A)
- Low Voltage(max.20V)
- Complements to BCP68

ORDERING INFORMATION

Package Type	Part Number
SOT-223	BCP69
	BCP69-16
	BCP69-25
Note	SPQ: 2,500pcs/Reel
AiT provides all RoHS Compliant Products	

h_{FE} CLASSIFICATION

Classification	h _{FE}
BCP69	83 ~ 375
BCP69-16	100 ~ 250
BCP69-25	160 ~ 375

PIN DESCRIPTION

PIN#	DESCRIPTION
1	BASE
2, 4	COLLECTOR
3	EMITTER

ABSOLUTE MAXIMUM RATINGS

T_A = 25°C, unless otherwise specified

V _{CBO} , Collector-Base Voltage	-32V
V _{CEO} , Collector-Emitter Voltage	-20V
V _{EBO} , Emitter-Base Voltage	-5V
I _C , Collector Current-Continuous	-1A
I _{CP} , Collector Current-Pulse	-2A
I _{BP} , Base Current-Pulse	-0.2A
P _C , Collector Power Dissipation	1.35W
T _{stg} , Storage Temperature Range	-65°C ~ + 150°C
T _j , Junction Temperature Range	150°C
R _{θJA} , Thermal Resistance from Junction to Ambient	91°C/W
R _{θJS} , Thermal Resistance from Junction to Soldering Point	10°C/W

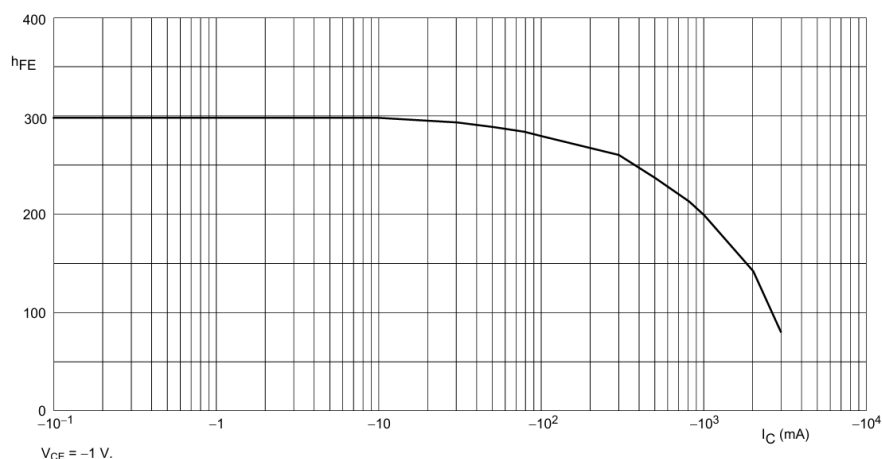
Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

**ELECTRICAL CHARACTERISTICS** $T_a = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Collector Cut-Off Current	I_{CBO}	$I_E=0, V_{CB}= -25\text{V}$	-	-	-100	μA
		$I_E=0\text{A}, V_{CB}= -25\text{V}, T_j=150^\circ\text{C}$	-	-	-10	
Emitter Cut-Off Current	I_{EBO}	$I_C=0\text{A}, V_{EB}= -5\text{V}$	-	-	-100	nA
Collector-base breakdown voltage	V_{CBO}	$I_C= -100\mu\text{A}, I_E=0$	-32	-	-	V
Collector-emitter breakdown voltage	V_{CEO}	$I_C= -1\text{mA}, I_B=0$	-20	-	-	
Emitter-base breakdown voltage	V_{EBO}	$I_E= -100\mu\text{A}, I_C=0$	-5	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C= 1\text{A}, I_B= -100\text{mA}$			-0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C= -1\text{A}, I_B= -100\text{mA}$			-1.2	V
Base-Emitter Voltage	V_{BE}	$I_C= -5\text{mA}, V_{CE}= -10\text{V}$		-0.62		V
		$I_C= -1\text{A}, V_{CE}= -1\text{V}$			-1	
DC Current Gain	h_{FE}	$I_C= -5\text{mA}, V_{CE}= -10\text{V}$	50	-	-	-
		$I_C= -500\text{mA}, V_{CE}= -1\text{V}$	85	-	375	
		$I_C= -1\text{A}, V_{CE}= -1\text{V}$	60	-	-	
DC Current Gain	C_{ob}	$V_{CB}= -5\text{V}, I_E=I_C=0, f=1\text{MHz}$	-	48	-	pF
Transit frequency	f_T	$V_{CE}= -5\text{V}, I_C= -10\text{mA}, f=100\text{MHz}$	40	-	-	mV

TYPICAL PERFORMANCE CHARACTERISTICS

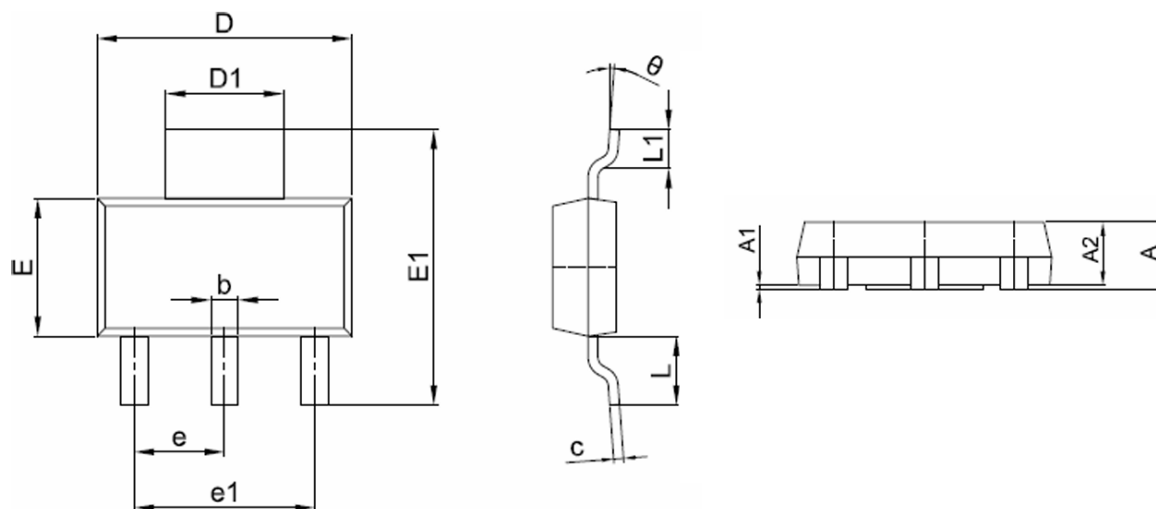
Fig 1. DC Current; Typical Values





PACKAGE INFORMATION

Dimension in SOT-223 Package



SYMBOL	MILLIMETERS	
	Min.	Max.
A	1.500	1.800
A1	0.000	0.100
A2	1.500	1.700
b	0.650	0.750
c	0.200	0.300
D	6.400	6.600
D1	2.900	3.100
E	3.300	3.700
E1	6.850	7.150
e	2.200	2.400
e1	4.400	4.800
L	1.650	1.850
L1	0.900	1.150



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