BCP69 TRANSISTOR (PNP)

1.BASE

2.COLLECTOR

3.EMITTER

SOT-223

FEATURES

- High Current and Low Voltage
- NPN Complement:BCP68

APPLICATIONS

- General Purpose Switching and Amplification
- Power Applications Such as Audio Output Stages

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-32	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-1	A
P_C	Collector Power Dissipation	1	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	125	℃/W
$T_{j,}T_{stg}$	Operation Junction and Storage Temperature Range	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-0.1mA,I_E=0	-32			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA,I_B=0	-20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-0.1mA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-25V,I_E=0			-100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V,I_C=0			-100	nA
DC current gain	$h_{FE(1)}$	V_{CE}=-1V, I_C=-0.5A	85		375	
	$h_{FE(2)}$	V_{CE}=-1V, I_C=-1A	60			
	$h_{FE(3)}$	V_{CE}=-10V, I_C=-5mA	50			
	$h_{FE(4)}$	V_{CE}=-1.8V, I_C=-10mA	140		230	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-1A,I_B=-100mA			-0.5	V
Base-emitter voltage	$V_{BE(1)}$	V_{CE}=-10V, I_C=-5mA			-0.68	V
	$V_{BE(2)}$	V_{CE}=-1V, I_C=-1A			-1	V
Transition frequency	f_T	V_{CE}=-5V,I_C=-10mA, f=100MHz	40			MHz
Collector output capacitance	C_{ob}	V_{CB}=-5V, I_E=0, f=1MHz		48		pF

CLASSIFICATION OF $h_{FE(1)}$

RANK	BCP69-16	BCP69-25
RANGE	100 - 250	160 - 375