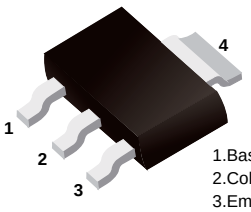
GOODWORK

BCP51/BCP52/BCP53

PNP Transistors

■ Features

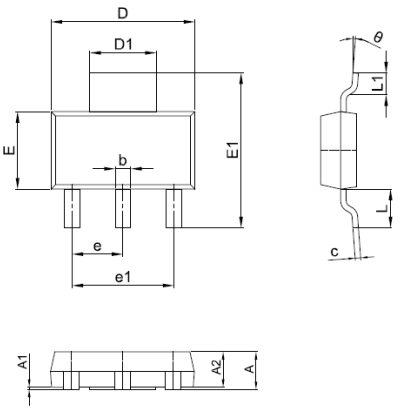
- For AF driver and output stages
- High collector current
- Low collector-emitter saturation voltage
- Complementary to BCP54,BCP55,BCP56



1.Base
2.Collector
3.Emitter
4.Collector

■ Simplified outline(SOT-223)

SOT-223



Symbol	Min.	Typ	Max.
A	1.52	1.62	1.80
A1	0.00	0.05	0.10
A2	1.50	1.60	1.70
b	0.65	0.70	0.75
c	0.20	0.25	0.30
D	6.40	6.50	6.60
D1	2.90	3.00	3.10
E	3.30	3.50	3.70
E1	6.85	7.00	7.15
e	2.20	2.30	2.40
e1	4.40	4.60	4.80
L	1.65	1.75	1.85
L1	0.90	1.00	1.10
θ	0°	5°	10°

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	BCP51	BCP52	BCP53	Unit
Collector - Base Voltage	V_{CBO}	-45	-60	-100	V
Collector - Emitter Voltage	V_{CEO}	-45	-60	-80	
Emitter - Base Voltage	V_{EBO}	-5			
Collector Current - Continuous	I_C	-1			A
Collector Power Dissipation	P_C	1.5			W
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	94			℃/W
Junction Temperature	T_J	150			℃
Storage Temperature Range	T_{stg}	-65 to 150			

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■ Electrical Characteristics Ta = 25℃

Parameter		Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	BCP51	V_{CBO}	I_C= -100 μA， I_E= 0	-45			V
	BCP52			-60			
	BCP53			-100			
Collector- emitter breakdown voltage	BCP51	V_{CEO}	I_C= -10 mA， I_B= 0	-45			
	BCP52			-60			
	BCP53			-80			
Emitter - base breakdown voltage		V_{EBO}	I_E= -100 μ A， I_C= 0	-5			
Collector-base cut-off current	BCP51	I_{CBO}	V_{CB}= -45 V , I_E= 0			-0.1	uA
	BCP52		V_{CB}= -60 V , I_E= 0				
	BCP53		V_{CB}= -100 V , I_E= 0				
Emitter cut-off current		I_{EBO}	V_{EB}= -5V , I_C=0			-0.1	
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C=-500 mA, I_B=-50mA			-0.5	V
Base - emitter saturation voltage		$V_{BE(sat)}$	I_C=-500 mA, I_B=-50mA			-1.2	
Base-emitter voltage		V_{BE}	V_{CE}= -2V, I_C= -500mA			-1	
DC current gain		$h_{FE(1)}$	V_{CE}= -2V, I_C= -5mA	25			
		$h_{FE(2)}$	V_{CE}= -2V, I_C= -150mA	63		250	
		$h_{FE(3)}$	V_{CE}= -2V, I_C= -500mA	25			
Transition frequency		f_T	V_{CE}= -10V, I_C= -50mA,f=100MHz	100			MHz