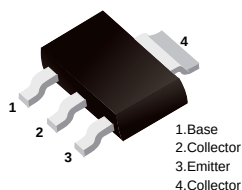


BCP54/BCP55/BCP56

NPN TRANSISTORS

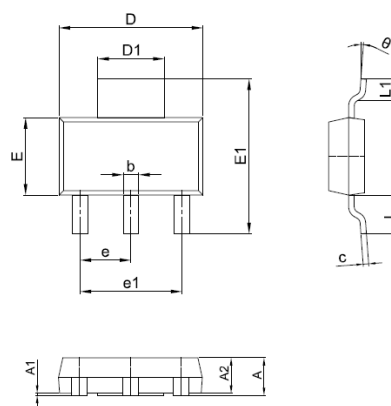
■ Features

- For AF driver and output stages
- High collector current
- Low collector-emitter saturation voltage
- Complementary to BCP51,BCP52,BCP53



■ 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°C

Parameter	Symbol	BCP54	BCP55	BCP56	Unit
Collector - Base Voltage	V _{CB0}	45	60	100	V
Collector - Emitter Voltage	V _{CEO}	45	60	80	
Emitter - Base Voltage	V _{EB0}	5			
Collector Current - Continuous	I _C	1			A
Collector Power Dissipation	P _C	1.5			W
Thermal Resistance Junction to Ambient	R _{θJA}	83.3			°C/W
Junction Temperature	T _J	150			°C
Storage Temperature Range	T _{stg}	-65 to 150			

BCP54/BCP55/BCP56

■ Electrical Characteristics Ta = 25°C

Parameter		Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	BCP54	VCBO	Ic= 100 μ A, IE= 0	45			V
	BCP55			60			
	BCP56			100			
Collector- emitter breakdown voltage	BCP54	VCEO	Ic= 10 mA, IB= 0	45			
	BCP55			60			
	BCP56			80			
Emitter - base breakdown voltage		VEBO	IE= 100 μ A, IC= 0	5			
Collector-base cut-off current	BCP54	ICBO	VCB= 45 V, IE= 0			0.1	μ A
	BCP55		VCB= 60 V, IE= 0				
	BCP56		VCB= 100 V, IE= 0				
Emitter cut-off current		IEBO	VEB= 5V, IC=0			0.1	
Collector-emitter saturation voltage		VCE(sat)	IC=500 mA, IB=50mA			0.5	V
Base - emitter saturation voltage		VBE(sat)	IC=500 mA, IB=50mA			1.2	
Base-emitter voltage		VBE	VCE= 2V, IC= 500mA			1	
DC current gain	hFE(1)		VCE= 2V, IC= 5mA	25			
	hFE(2)		VCE= 2V, IC= 150mA	63		250	
	hFE(3)		VCE= 2V, IC= 500mA	25			
Transition frequency		fr	VCE= 10V, IC= 50mA,f=100MHz	100			MHz

RATING AND CHARACTERISTIC CURVES (BCP54/BCP55/BCP56)

