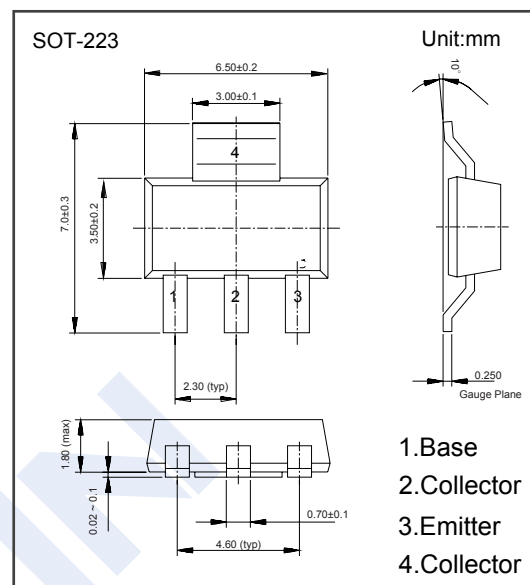


PNP Transistors
BCP51,BCP52,BCP53
(KCP51,KCP52,KCP53)

■ Features

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



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	BCP51	BCP52	BCP53	Unit
Collector - Base Voltage	V _{CB0}	-45	-60	-100	V
Collector - Emitter Voltage	V _{CE0}	-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}	94			°C/W
Junction Temperature	T _J	150			°C
Storage Temperature Range	T _{stg}	-65 to 150			

PNP Transistors

BCP51,BCP52,BCP53

(KCP51,KCP52,KCP53)

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter		Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	BCP51	V_{CB0}	$I_C = -100\ \mu\text{A}, I_E = 0$	-45			V
	BCP52			-60			
	BCP53			-100			
Collector- emitter breakdown voltage	BCP51	V_{CE0}	$I_C = -10\ \text{mA}, I_B = 0$	-45			V
	BCP52			-60			
	BCP53			-80			
Emitter - base breakdown voltage		V_{EB0}	$I_E = -100\ \mu\text{A}, I_C = 0$	-5			
Collector-base cut-off current	BCP51	I_{CBO}	$V_{CB} = -45\ \text{V}, I_E = 0$			-0.1	μA
	BCP52		$V_{CB} = -60\ \text{V}, I_E = 0$				
	BCP53		$V_{CB} = -100\ \text{V}, I_E = 0$				
Emitter cut-off current		I_{EBO}	$V_{EB} = -5\ \text{V}, I_C = 0$			-0.1	
Collector-emitter saturation voltage		$V_{CE(sat)}$	$I_C = -500\ \text{mA}, I_B = -50\ \text{mA}$			-0.5	V
Base - emitter saturation voltage		$V_{BE(sat)}$	$I_C = -500\ \text{mA}, I_B = -50\ \text{mA}$			-1.2	
Base-emitter voltage		V_{BE}	$V_{CE} = -2\ \text{V}, I_C = -500\ \text{mA}$			-1	
DC current gain	$h_{FE(1)}$		$V_{CE} = -2\ \text{V}, I_C = -5\ \text{mA}$	25			
	$h_{FE(2)}$		$V_{CE} = -2\ \text{V}, I_C = -150\ \text{mA}$	63		250	
	$h_{FE(3)}$		$V_{CE} = -2\ \text{V}, I_C = -500\ \text{mA}$	25			
Transition frequency		f_T	$V_{CE} = -10\ \text{V}, I_C = -50\ \text{mA}, f = 100\ \text{MHz}$	100			MHz

■ Classification of $h_{FE(2)}$

Type	BCP51-10,BCP52-10,BCP53-10	BCP51-16,BCP52-16,BCP53-16
Range	63-160	100-250