

BCP54,55,56

NPN GENERAL PURPOSE TRANSISTOR

VOLTAGE	45~80 Volt	POWER	1.5Watt
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SOT-223

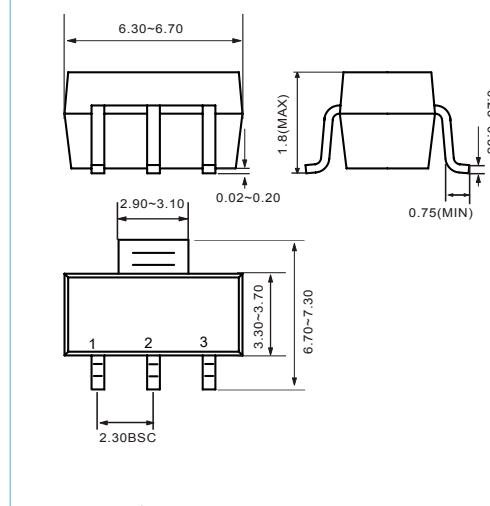
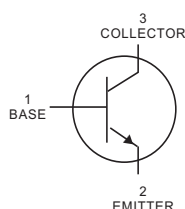
Unit:mm

FEATURES

- For AF driver and output stages
- High collector current
- Low collector-emitter saturation voltage
- Complementary types: BCP51 ... BCP53 (PNP)
- Lead free in compliance with EU RoHS
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MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	BCP54	BCP55	BCP56	Unit
V_{CBO}	Collector-Base Voltage	45	60	100	V
V_{CEO}	Collector-Emitter Voltage	45	60	80	V
V_{EBO}	Emitter-Base Voltage	5			V
I_C	Collector Current -Continuous	1			A
P_C	Collector Power Dissipation	1.5			W
$R_{\theta JA}$	Thermal Resistance Junction to Ambient	83.3			$^{\circ}\text{C}/\text{W}$
T_{stg}	Storage Temperature Range	-65~+150			$^{\circ}\text{C}$

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ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

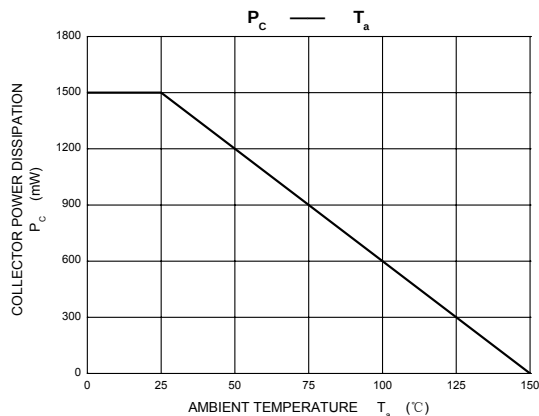
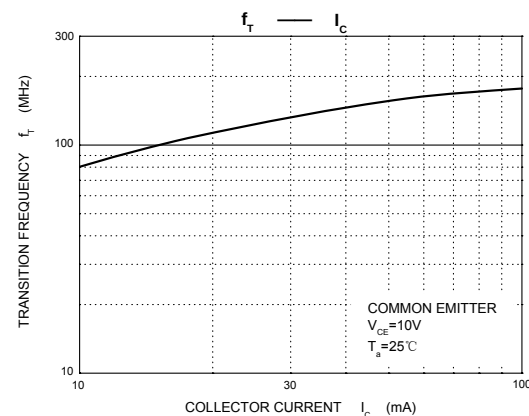
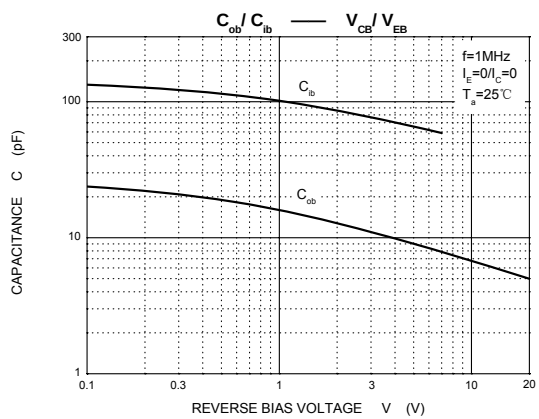
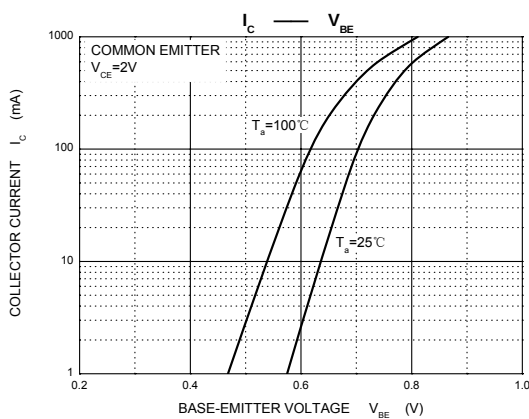
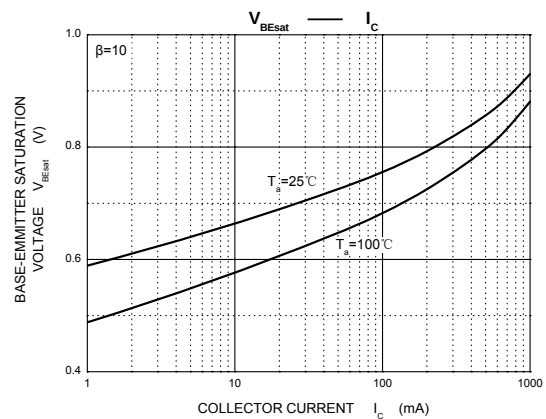
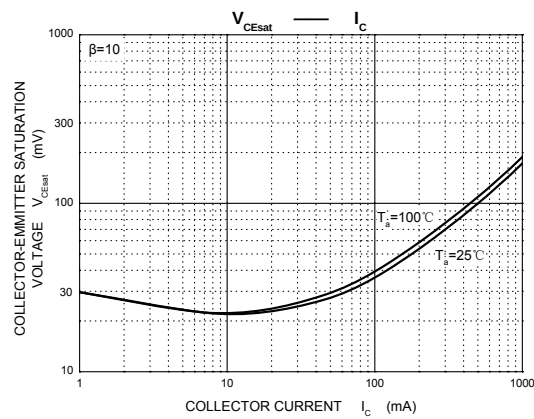
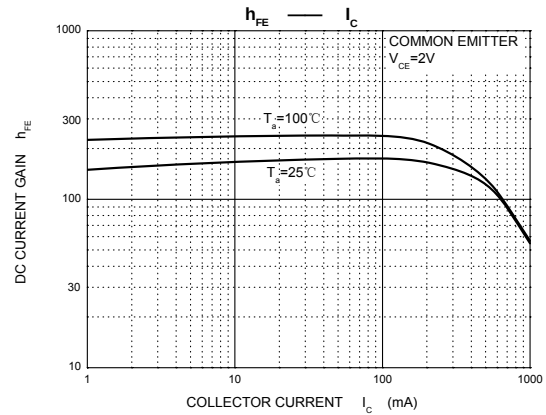
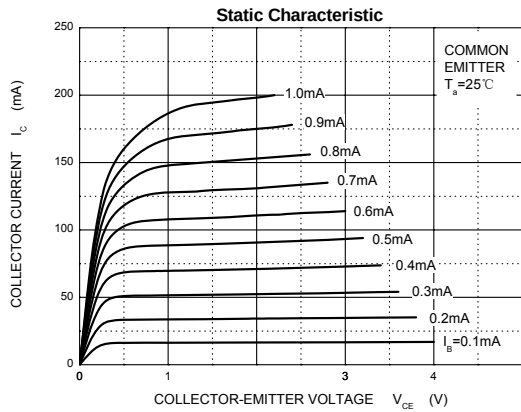
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	BCP54 BCP55 BCP56	$V_{(BR)CBO}$	$I_C=0.1\text{mA}, I_E=0$	45 60 100	V
Collector-emitter breakdown voltage	BCP54 BCP55 BCP56	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	45 60 80	V
Base-emitter breakdown voltage		$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	5	V
Collector cut-off current		I_{CBO}	$V_{CB}=30\text{V}, I_E=0$	100	nA
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	
Collector-emitter saturation voltage		$V_{CE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$	0.5	V
Base-emitter voltage		V_{BE}	$V_{CE}=2\text{V}, I_C=500\text{mA}$	1	V
Transition frequency		f_T	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=100\text{MHz}$	100	MHz

CLASSIFICATION OF $h_{FE(2)}$

Rank	BCP54-10, BCP55-10, BCP56-10	BCP54-16, BCP55-16, BCP56-16
Range	63-160	100-250
Marking	BCP54-10, BCP55-10, BCP56-10	BCP54-16, BCP55-16, BCP56-16

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Typical Characteristics



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ORDER INFORMATION

- Packing information

Part Number	Case	Reel Size	QUANTITY
BCP54,55,56	SOT-223	7 Inch	2500