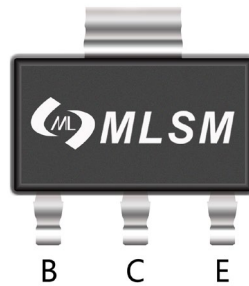
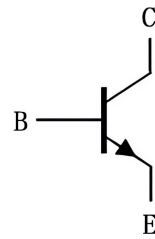


Features

- For AF driver and output stages
- High collector current
- Low collector-emitter saturation voltage
- Complementary types:
BCP51/BCP52/BCP53 (PNP)



SOT-223 top view



Schematic diagram



Pb-Free



Halogen-Free

Maximum Ratings(Ta=25°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
I_{CM}	Peak Pulse Collector Current	2			A
I_B	Base Current-Continuous	100			mA
I_{BM}	Peak Pulse Base Current	200			mA
P_C	Collector Power Dissipation	1.5			W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	83.3			°C/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150			°C

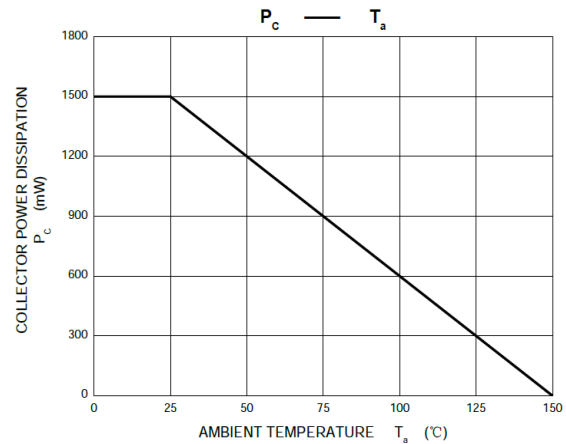
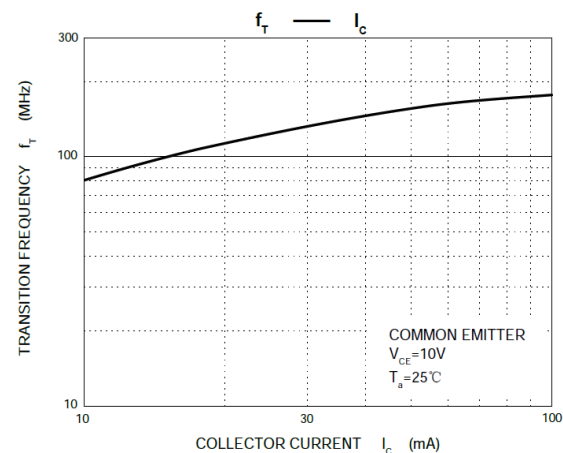
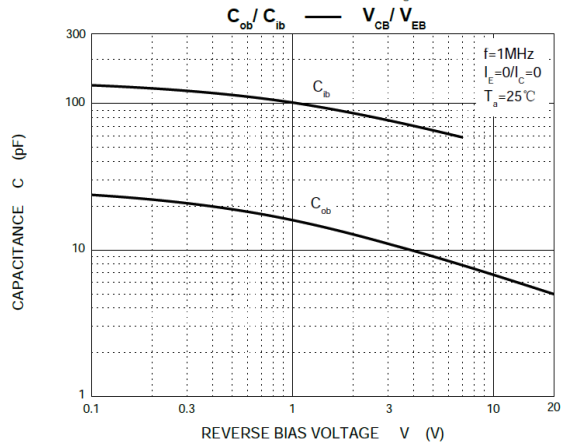
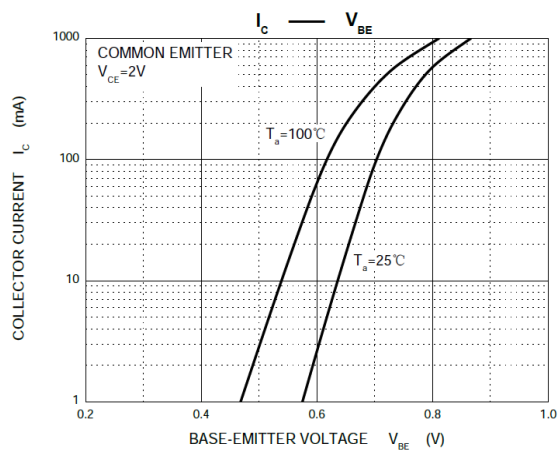
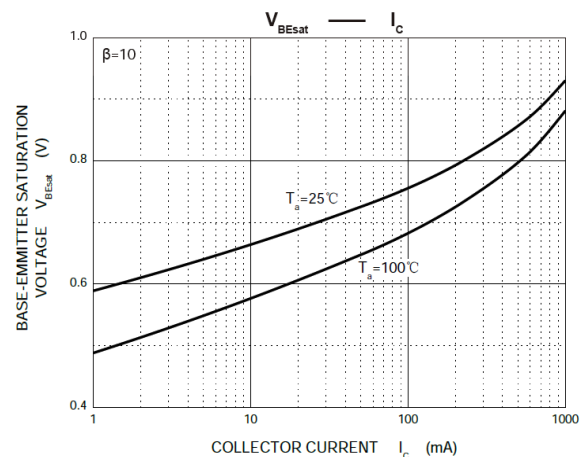
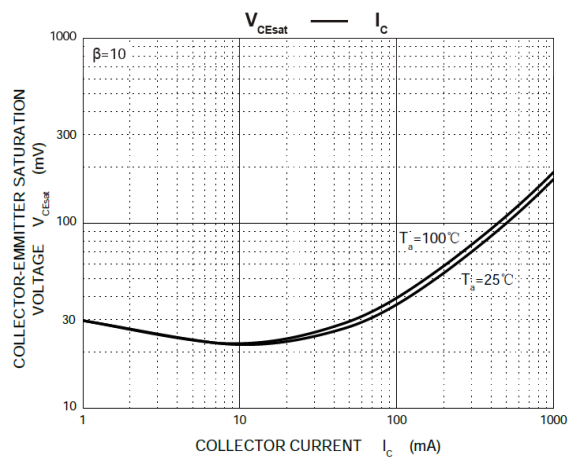
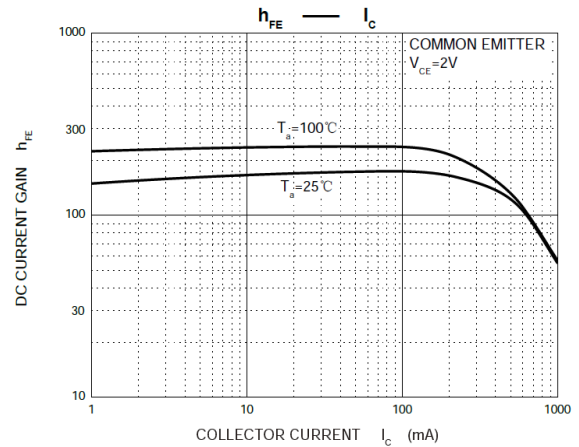
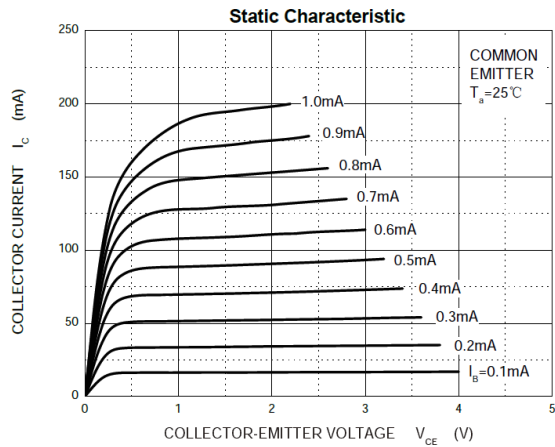
Electrical Characteristics (TJ=25°C unless otherwise noted)

Symbol	Parameter	Condition	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	BCP54	45	--	--	V
		BCP55	60	--	--	
		BCP56	100	--	--	
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	BCP54	45	--	--	V
		BCP55	60	--	--	
		BCP56	80	--	--	
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=10\mu A, I_C=0$	5	--	--	V
I_{CBO}	Collector cut-off current	$V_{CB}=30V, I_E=0$	--	--	100	nA
h_{FE1}	DC current gain	$V_{CE}=2V, I_C=5mA$	25	--	--	--
h_{FE2}		$V_{CE}=2V, I_C=150mA$	63	--	250	
h_{FE3}		$V_{CE}=2V, I_C=500mA$	25	--	--	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=500mA, I_B=50mA$	--	--	0.5	V
f_T	Transition frequency	$V_{CE}=10V, I_C=50mA, f=100MHz$	100	--	--	MHz
V_{BE}	Base-emitter voltage	$V_{CE}=2V, I_C=500mA$	--	--	1	V

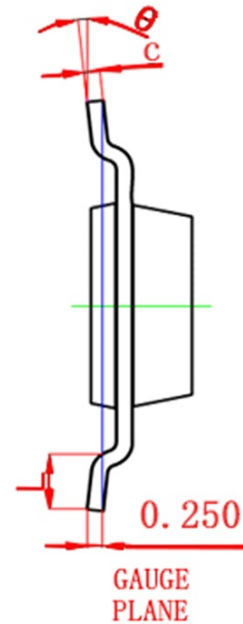
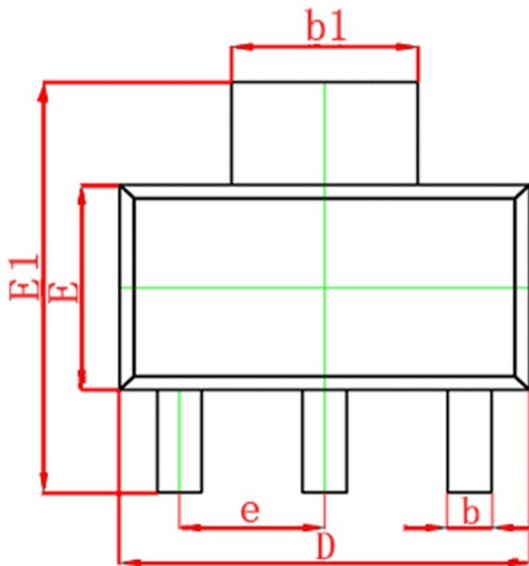
Ordering Information (Example)

Type	Hfe	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
BCP54	63-160	BCP54-10	2,500	5,000	35,000	13"reel
	100-250	BCP54-16				
BCP55	63-160	BCP55-10	2,500	5,000	35,000	13"reel
	100-250	BCP55-16				
BCP56	63-160	BCP56-10	2,500	5,000	35,000	13"reel
	100-250	BCP56-16				

Typical Operating Characteristics



SOT-223 Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
A	--	1.800	--	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	3.300	3.700	0.130	0.146
E1	6.700	7.300	0.264	0.287
e	2.300(BSC)		0.091(BSC)	
L	0.750	--	0.030	--
θ	0°	10°	0°	10°