MMBTA56 TRANSISTOR (PNP)

1.BASE
2.COLLECTOR
3.EMITTER

SOT-23-3

FEATURES

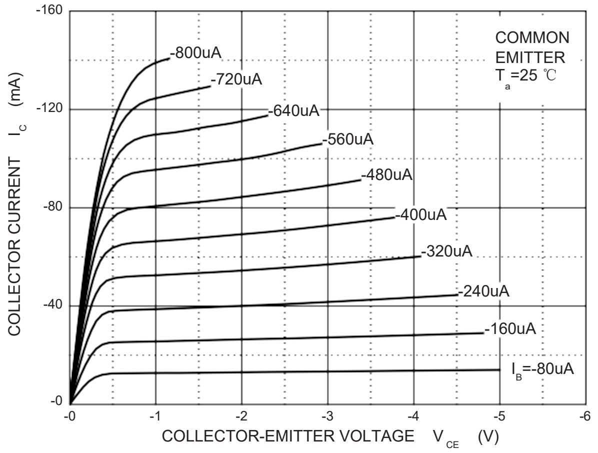
- General Purpose Amplifier Applications

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

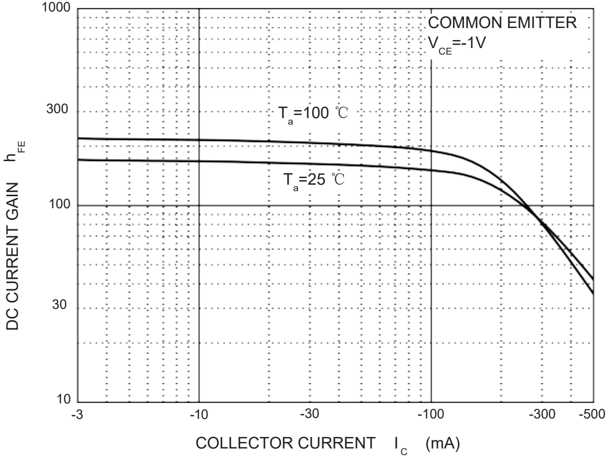
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-80	V
V_{EBO}	Emitter-Base Voltage	-4	V
I_C	Collector Current	-500	mA
P_C	Collector Power Dissipation	350	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	555	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55～+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

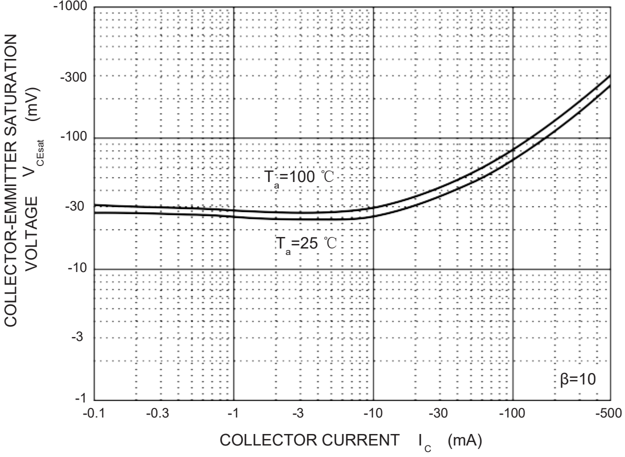
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA, I_E=0	-80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA, I_B=0	-80			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA, I_C=0	-4			V
Collector cut-off current	I_{CBO}	V_{CB}=-80V, I_E=0			-0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}=-60V, I_B=0			-1	μA
Emitter-base breakdown voltage	I_{EBO}	V_{EB}=-4V, I_C=0			-0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=-1V, I_C=-10mA	100		400	
	$h_{FE(2)}$	V_{CE}=-1V, I_C=-100mA	100			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-100mA, I_B=-10mA			-0.25	V
Base-emitter voltage	V_{BE}	V_{CE}=-1V, I_C=-100mA			-1.2	V
Transition frequency	f_T	V_{CE}=-1V,I_C=-100mA, f=100MHz	50			MHz



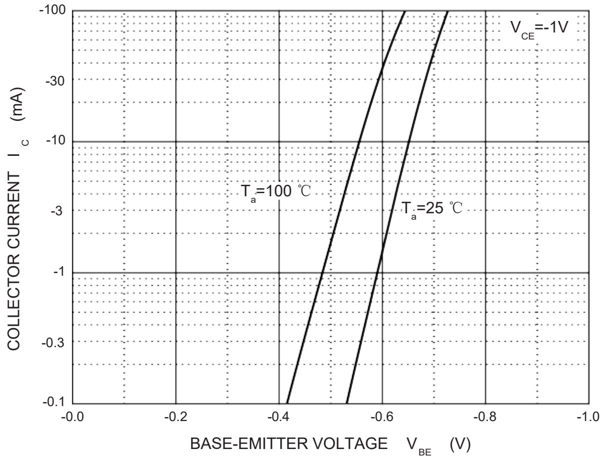
Static Characteristic



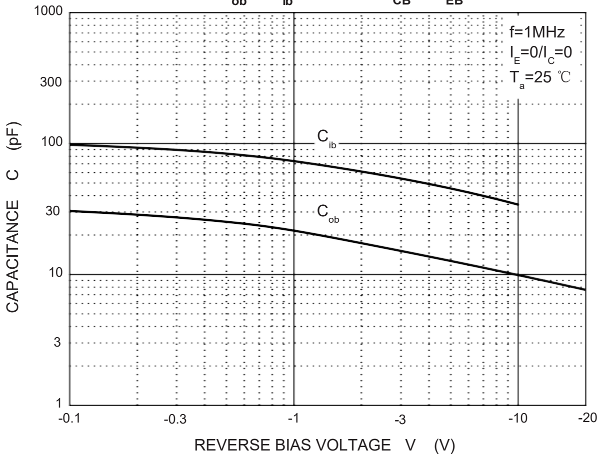
h_{FE} —— I_C



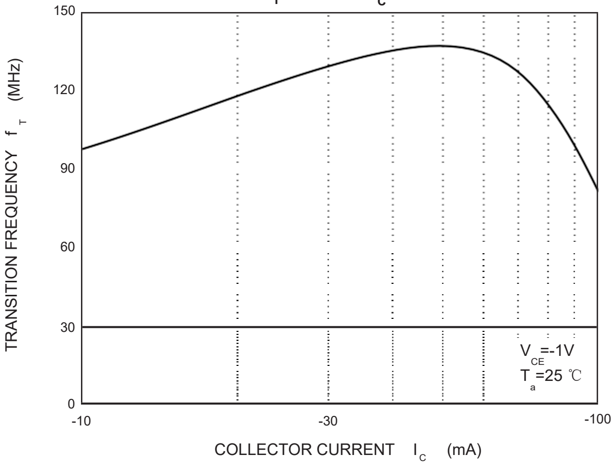
V_{CEsat} —— I_C



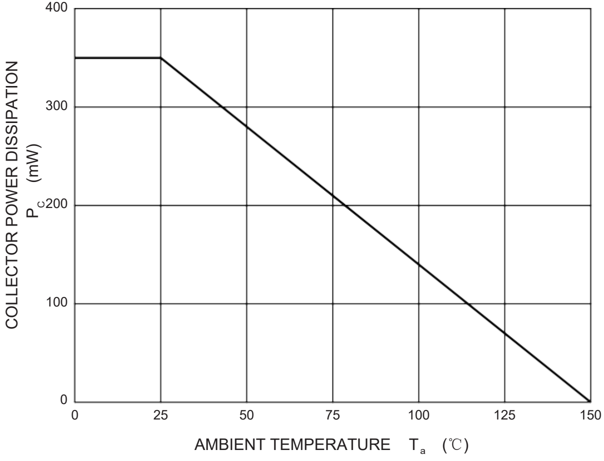
V_{BE} —— I_C



C_{ob} / C_{ib} —— V_{CB} / V_{EB}



f_T —— I_C



P_C —— T_a