



FEATURES

High Breakdown Voltage
Complement to MMBTA94

Marking : 3D

MMBTA44(NPN)

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V _{CBO}	400	V
DCollector-Emitter Voltage	V _{CEO}	400	V
Emitter-Base Voltage	V _{EBO}	6	V
Collector Current -Continuous	I _C	200	mA
Collector Current -Pulsed	I _{CM}	300	mA
Collector Power Dissipation	P _C	350	mW
Thermal Resistance From Junction To Ambient	R _{JA}	357	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{stg}	-55 to +150	°C



ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{CBO}	I _C =100μA, I _E =0	400			V
Collector-emitter breakdown voltage	V _{CEO}	I _C =1mA, I _B =0	400			V
Emitter-base breakdown voltage	V _{EBO}	I _E =10μA, I _C =0	6			V
Collector cut-off current	I _{CBO}	V _{CB} =400V, I _E =0			0.1	μA
Collector cut-off current	I _{CEO}	V _{CE} =400V, I _B =0			5	μA
Emitter cut-off current	I _{EBO}	V _{EB} =4V, I _C =0			0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =10V, I _C =1mA	40			
	h _{FE(2)}	V _{CE} =10V, I _C =10mA	50		200	
	h _{FE(3)}	V _{CE} =10V, I _C =50mA	45			
	h _{FE(4)}	V _{CE} =10V, I _C =100mA	40			
Collector-emitter saturation voltage	V _{CE(sat)1}	I _C =1mA, I _B =0.1mA			0.4	V
	V _{CE(sat)2}	I _C =10mA, I _B =1mA			0.5	V
	V _{CE(sat)3}	I _C =50mA, I _B =5mA			0.75	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =10mA, I _B =1mA			0.75	V
Collector output capacitance	C _{ob}	V _{CB} =20V, I _E =0, f=1MHz			7	PF
Emitter input capacitance	C _{ib}	V _{EB} =0.5V, I _C =0, f=1MHz			130	PF



MMBTA44 Typical Characteristics

