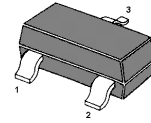


MMBT495

NPN Silicon Epitaxial Planar Transistor

Medium Power High Performance Transistor



1.BASE 2.EMITTER 3.COLLECTOR
SOT-23 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V _{CBO}	170	V
Collector Emitter Voltage	V _{CEO}	150	V
Emitter Base Voltage	V _{EBO}	5	V
Collector Current	I _C	1	A
Peak Pulse Current	I _{CM}	2	A
Power Dissipation	P _{tot}	200	mW
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain				
at V _{CE} = 10 V, I _C = 1 mA	h _{FE}	100	-	-
at V _{CE} = 10 V, I _C = 250 mA	h _{FE}	100	300	-
at V _{CE} = 10 V, I _C = 500 mA	h _{FE}	50	-	-
at V _{CE} = 10 V, I _C = 1 A	h _{FE}	10	-	-
Collector Base Cutoff Current	I _{CBO}	-	100	nA
at V _{CB} = 150 V				
Collector Emitter Cutoff Current	I _{CES}	-	100	nA
at V _{CE} = 150 V				
Emitter Base Cutoff Current	I _{EBO}	-	100	nA
at V _{EB} = 4 V				
Collector Base Breakdown Voltage	V _{(BR)CBO}	170	-	V
at I _C = 100 μA				
Collector Emitter Breakdown Voltage	V _{(BR)CEO}	150	-	V
at I _C = 10 mA				
Emitter Base Breakdown Voltage	V _{(BR)EBO}	5	-	V
at I _E = 100 μA				
Collector Emitter Saturation Voltage	V _{CEsat}	-	0.2	V
at I _C = 250 mA, I _B = 25 mA				
at I _C = 500 mA, I _B = 50 mA			0.3	
Base Emitter Saturation Voltage	V _{BEsat}	-	1	V
at I _C = 500 mA, I _B = 50 mA				
Base Emitter On Voltage	V _{BE(on)}	-	1	V
at V _{CE} = 10 V, I _C = 500 mA				
Transition Frequency	f _T	100	-	MHz
at V _{CE} = 10 V, I _C = 50 mA, f = 100 MHz				
Collector Output Capacitance	C _{ob}	-	10	pF
at V _{CB} = 10 V, f = 1 MHz				

