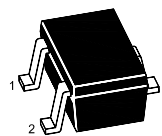


MMBT8050W (1.5A)

NPN Silicon Epitaxial Planar Transistor

for switching and amplifier applications



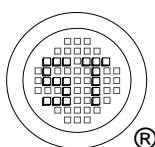
1.Base 2.Emitter 3.Collector
SOT-323 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	40	V
Collector Emitter Voltage	V_{CEO}	25	V
Emitter Base Voltage	V_{EBO}	5	V
Peak Collector Current	I_{CM}	1.5	A
Total Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{Stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit	
DC Current Gain at $V_{CE} = 1\text{ V}$, $I_C = 100\text{ mA}$	MMBT8050CW	h_{FE}	100	250	-
	MMBT8050DW	h_{FE}	160	400	-
	h_{FE}	40	-	-	-
at $V_{CE} = 1\text{ V}$, $I_C = 800\text{ mA}$	h_{FE}	40	-	-	-
Collector Base Voltage at $I_C = 100\text{ }\mu\text{A}$	V_{CBO}	40	-	V	
Collector Emitter Voltage at $I_C = 100\text{ }\mu\text{A}$	V_{CEO}	25	-	V	
Emitter Base Voltage at $I_E = 100\text{ }\mu\text{A}$	V_{EBO}	5	-	V	
Collector Base Cutoff Current at $V_{CB} = 40\text{ V}$	I_{CBO}	-	100	nA	
Collector Emitter Cutoff Current at $V_{CE} = 20\text{ V}$	I_{CEO}	-	100	nA	
Emitter Base Cutoff Current at $V_{EB} = 5\text{ V}$	I_{EBO}	-	100	nA	
Collector Emitter Saturation Voltage at $I_C = 800\text{ mA}$, $I_B = 80\text{ mA}$	$V_{CE(sat)}$	-	0.5	V	
Base Emitter Saturation Voltage at $I_C = 800\text{ mA}$, $I_B = 80\text{ mA}$	$V_{BE(sat)}$	-	1.2	V	
Transition Frequency at $V_{CE} = 10\text{ V}$, $I_C = 50\text{ mA}$, $f = 30\text{ MHz}$	f_T	100	-	MHz	

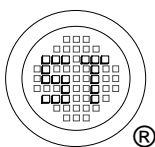
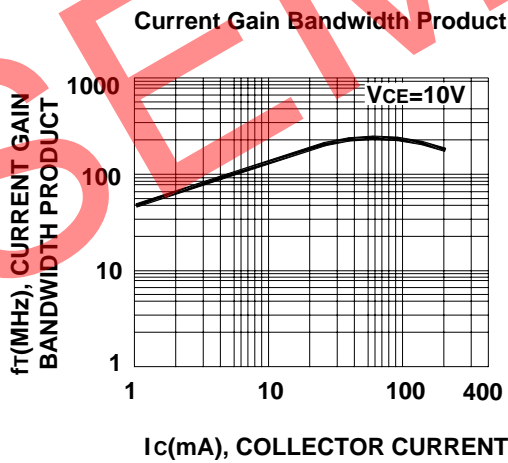
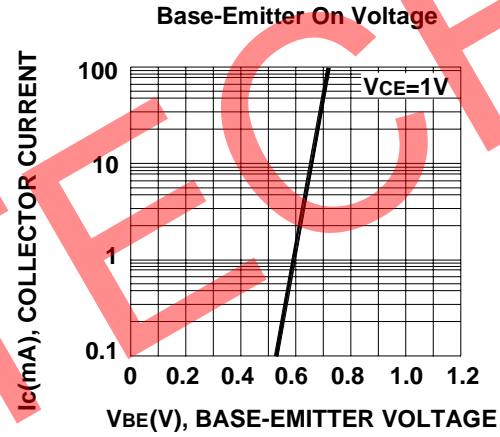
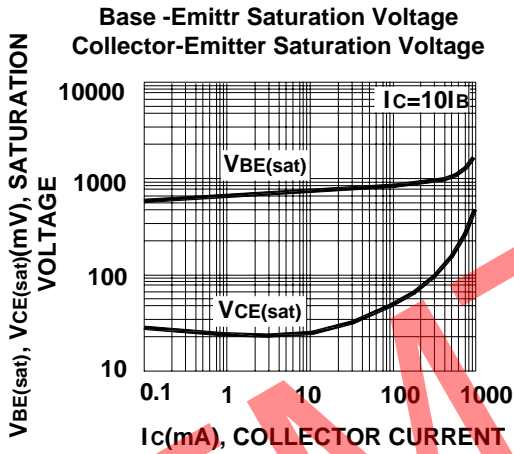
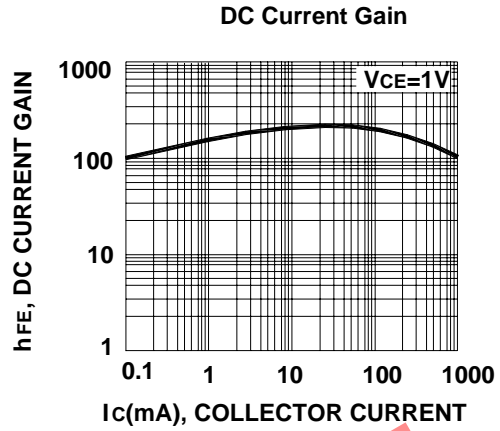
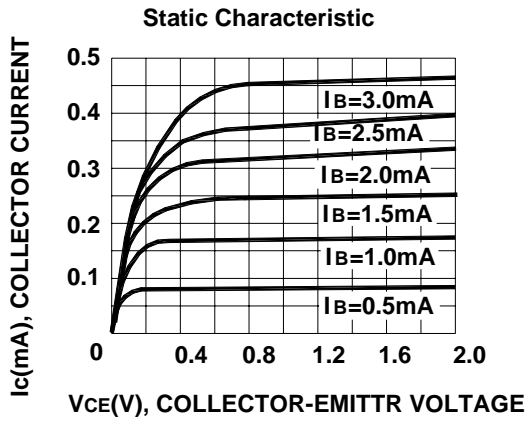


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Dated : 11/08/2006

MMBT8050W (1.5A)



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