

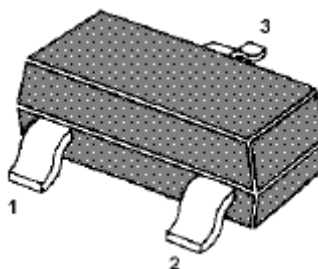
# Kingtronics®

## MMBT8050

### NPN Silicon Epitaxial Planar Transistors

#### For switching and amplifier applications

As complementary types the PNP transistors MMBT8550 is recommended.



1.Base 2.Emitter 3.Collector  
SOT-23 Plastic Package

#### Absolute Maximum Ratings (Ta = 25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Collector Base Voltage	V <sub>CBO</sub>	40	V
Collector Emitter Voltage	V <sub>CEO</sub>	25	V
Emitter Base Voltage	V <sub>EBO</sub>	6	V
Collector Current	I <sub>C</sub>	600	mA
Power Dissipation	P <sub>tot</sub>	350	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>s</sub>	- 55 to + 150	°C

#### Characteristics at Ta = 25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT
DC Current Gain at V <sub>CE</sub> = 1 V, I <sub>C</sub> = 100 mA	h <sub>FE</sub>	100	-	250	-
MMBT8050D		160	-	400	-
at V <sub>CE</sub> = 1 V, I <sub>C</sub> = 500 mA		40	-	-	-
Collector Base Cutoff Current at V <sub>CB</sub> = 35 V	I <sub>CBO</sub>	-	-	100	nA
Collector Base Breakdown Voltage at I <sub>C</sub> = 10 μA	V <sub>(BR)CBO</sub>	40	-	-	V
Collector Emitter Breakdown Voltage at I <sub>C</sub> = 2 mA	V <sub>(BR)CEO</sub>	25	-	-	V
Emitter Base Breakdown Voltage at I <sub>E</sub> = 100 μA	V <sub>(BR)EBO</sub>	6	-	-	V
Collector Emitter Saturation Voltage at I <sub>C</sub> = 500 mA, I <sub>B</sub> = 50 mA	V <sub>CE(sat)</sub>	-	-	0.5	V
Base Emitter Saturation Voltage at I <sub>C</sub> = 500 mA, I <sub>B</sub> = 50 mA	V <sub>BE(sat)</sub>	-	-	1.2	V
Gain Bandwidth Product at V <sub>CE</sub> = 5 V, I <sub>C</sub> = 10 mA	f <sub>T</sub>	-	100	-	MHz

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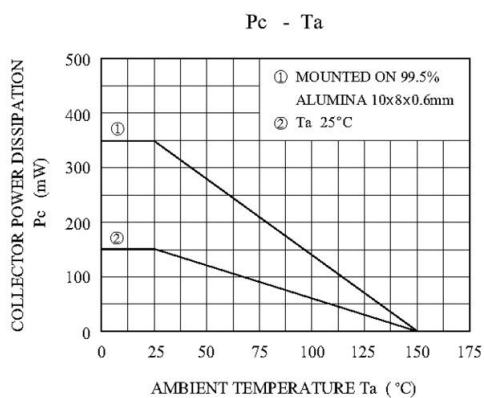
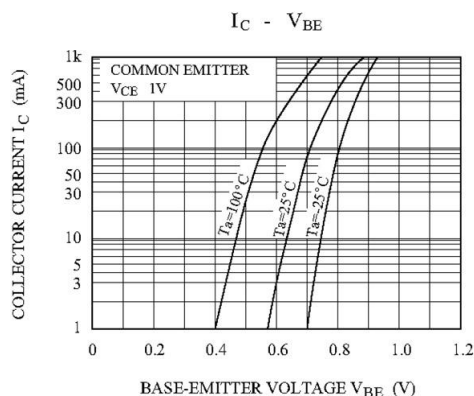
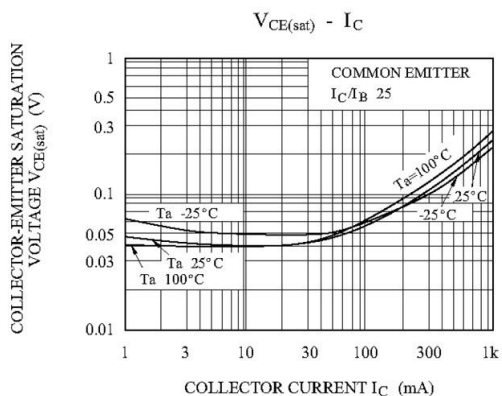
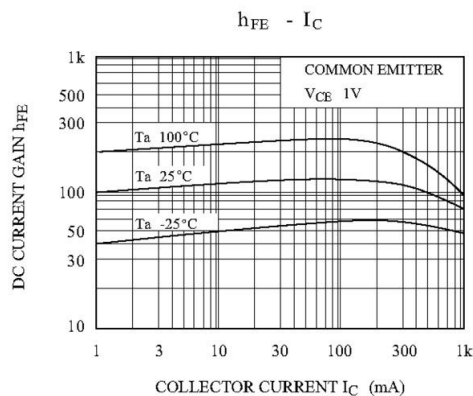
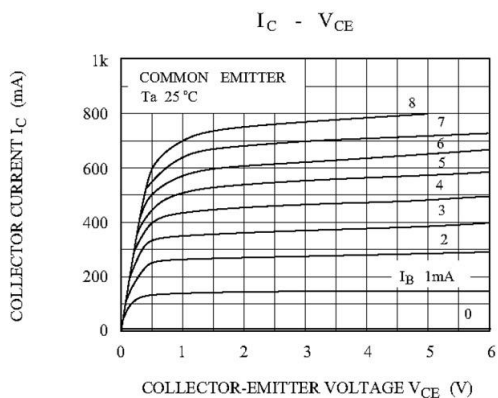
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### RATINGS AND CHARACTERISTIC CURVES MMBT8050



Note: Specifications are subject to change without notice.

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