

SOT-23 Plastic-Encapsulate Transistors

M8050 TRANSISTOR (NPN)

FEATURES

Power dissipation

MARKING: Y11

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



Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	40	V
V _{CE0}	Collector-Emitter Voltage	25	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current -Continuous	0.8	A
P _C	Collector Power Dissipation	0.2	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	V(BR) _{CBO}	I _C = 100μA, I _E =0	40		V
Collector-emitter breakdown voltage	V(BR) _{CEO} *	I _C =1mA, I _B =0	25		V
Emitter-base breakdown voltage	V(BR) _{EBO}	I _E = 100μA, I _C =0	6		V
Collector cut-off current	I _{CBO}	V _{CB} = 35V, I _E =0		0.1	μA
Collector cut-off current	I _{CEO}	V _{CE} = 20V, I _B =0		0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =1V, I _C =5mA	45		
	h _{FE(2)}	V _{CE} =1V, I _C =100mA	80	300	
	h _{FE(3)}	V _{CE} =1V, I _C =800mA	40		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 800mA, I _B =80mA		0.5	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =800mA, I _B = 80mA		1.2	V
Transition frequency	f _T	V _{CE} =6V, I _C = 20mA, f=30MHz	150		MHz

* Pulse Test : pulse width ≤ 300μs , duty cycle ≤2%.

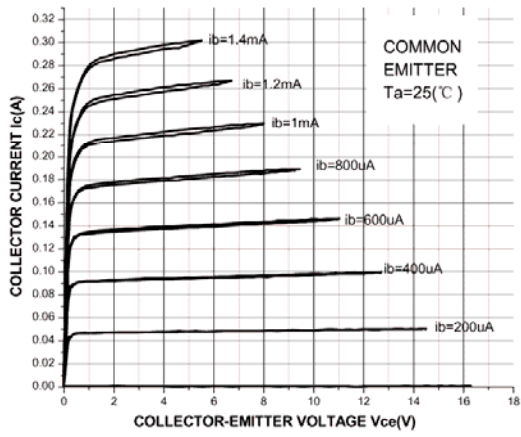
CLASSIFICATION OF h_{FE(2)}

Rank	L	H
Range	80-200	200-300

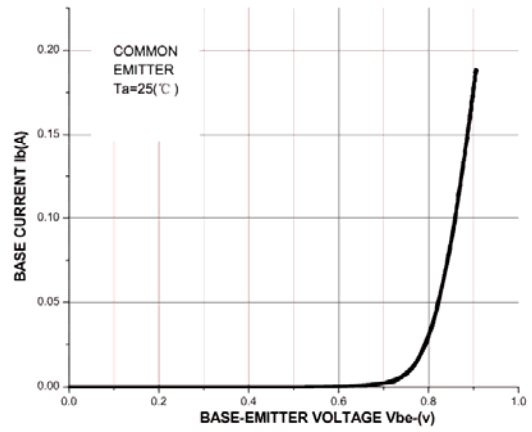
Typical Characteristics

M8050

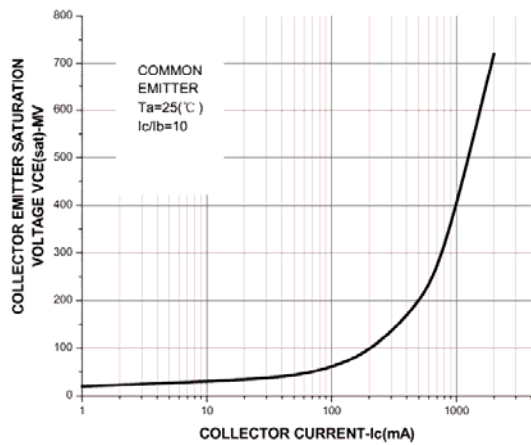
Ic-Vce



Ib-Vbe



Vcesat-Ic



hFE-Ic

