

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Power dissipation

MARKING

Product	Marking Code
M8050	Y11

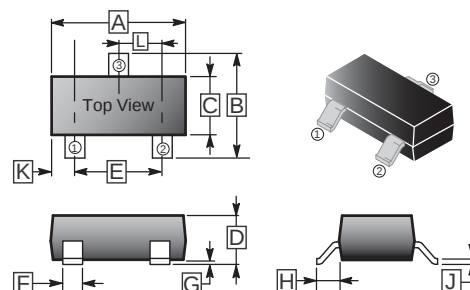
PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch

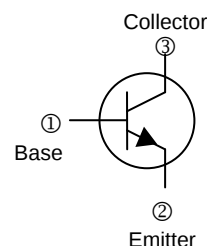
CLASSIFICATION OF $h_{FE(2)}$

Product-Rank	M8050-L
Range	80-300

SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.04	G	-	0.18
B	2.10	2.80	H	0.40	0.60
C	1.20	1.60	J	0.08	0.20
D	0.89	1.40	K	0.6	REF.
E	1.78	2.04	L	0.85	1.15
F	0.30	0.50			



MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	40	V
Collector - Emitter Voltage	V_{CEO}	25	V
Emitter - Base Voltage	V_{EBO}	6	V
Collector Current - Continuous	I_C	0.8	A
Collector Power Dissipation	P_C	0.2	W
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Test Conditions	Symbol	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$I_C=100\mu\text{A}, I_E=0$	$V_{(BR)CBO}$	40	-	-	V
Collector-Emitter Breakdown Voltage ¹	$I_C=1\text{mA}, I_B=0$	$V_{(BR)CEO}$	25	-	-	V
Emitter-Base Breakdown Voltage	$I_E=100\mu\text{A}, I_C=0$	$V_{(BR)EBO}$	6	-	-	V
Collector Cut-Off Current	$V_{CB}=35\text{V}, I_E=0$	I_{CBO}	-	-	0.1	μA
Emitter Cut-Off Current	$V_{CE}=20\text{V}, I_B=0$	I_{CEO}	-	-	0.1	μA
DC Current Gain	$V_{CE}=1\text{V}, I_C=5\text{mA}$	h_{FE1}	45	-	-	
	$V_{CE}=1\text{V}, I_C=100\text{mA}$	h_{FE2}	80	-	300	
	$V_{CE}=1\text{V}, I_C=800\text{mA}$	h_{FE3}	40	-	-	
Collector-Emitter Saturation Voltage	$I_C=800\text{mA}, I_B=80\text{mA}$	$V_{CE(sat)}$	-	-	0.5	V
Base-Emitter Saturation Voltage	$I_C=800\text{mA}, I_B=80\text{mA}$	$V_{BE(sat)}$	-	-	1.2	V
Transition frequency	$V_{CE}=6\text{V}, I_C=20\text{mA}, f=30\text{MHz}$	f_T	150	-	-	MHz

Note:

- Pulse test : pulse width ≤ 300 S, duty cycle $\leq 2\%$.

CHARACTERISTIC CURVES

