



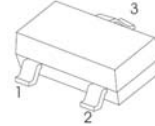
骏业（香港）实业有限公司

400-0744-078

SOT-23 Plastic-Encapsulate Transistors

M8050 TRANSISTOR (NPN)

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

FEATURES

Power dissipation

MARKING: Y11

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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	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	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	$I_{\text{C}}=100\mu\text{A}$, $I_{\text{E}}=0$	40		V
Collector-emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}^*$	$I_{\text{C}}=1\text{mA}$, $I_{\text{B}}=0$	25		V
Emitter-base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	$I_{\text{E}}=100\mu\text{A}$, $I_{\text{C}}=0$	6		V
Collector cut-off current	I_{CBO}	$V_{\text{CB}}=35\text{V}$, $I_{\text{E}}=0$		0.1	μA
Collector cut-off current	I_{CEO}	$V_{\text{CE}}=20\text{V}$, $I_{\text{B}}=0$		0.1	μA
DC current gain	$h_{\text{FE}(1)}$	$V_{\text{CE}}=1\text{V}$, $I_{\text{C}}=5\text{mA}$	45		
	$h_{\text{FE}(2)}$	$V_{\text{CE}}=1\text{V}$, $I_{\text{C}}=100\text{mA}$	80	400	
	$h_{\text{FE}(3)}$	$V_{\text{CE}}=1\text{V}$, $I_{\text{C}}=800\text{mA}$	40		
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}}=800\text{mA}$, $I_{\text{B}}=80\text{mA}$		0.5	V
Base-emitter saturation voltage	$V_{\text{BE(sat)}}$	$I_{\text{C}}=800\text{mA}$, $I_{\text{B}}=80\text{mA}$		1.2	V
Transition frequency	f_{T}	$V_{\text{CE}}=6\text{V}$, $I_{\text{C}}=20\text{mA}$, $f=30\text{MHz}$	150		MHz

* Pulse Test : pulse width $\leq 300\mu\text{s}$, duty cycle $\leq 2\%$.

CLASSIFICATION OF $h_{\text{FE}(2)}$

Rank	L	H
Range	80-300	300-400

Typical Characteristics

M8050

