

**SOT-23 Plastic-Encapsulate Transistors****M8050** TRANSISTOR (NPN)**FEATURES**

Power dissipation

 P_{CM} : 200 m W ($T_{amb}=25^{\circ}C$)

Collector current

 I_{CM} : 1 A

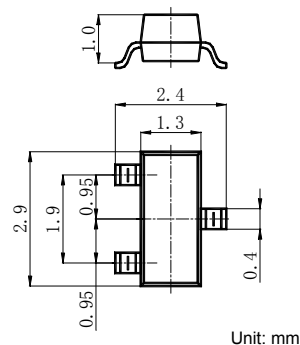
Collector-base voltage

 $V_{(BR)CBO}$: 40 V

Operating and storage junction temperature range

 T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$ **SOT-23**

1. BASE
2. EMITTER
3. COLLECTOR

**MARKING: Y11****ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)**

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu A, I_E = 0$	40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C = 0.1mA, I_B = 0$	25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\mu A, I_C = 0$	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 $\leq 300\mu s$, duty cycle $\leq 2\%$.