

**S8050****TRANSISTOR (PNP)****FEATURES**

Power dissipation

 $P_{CM} : 0.625 \text{ W (} T_{amb}=25^{\circ}\text{C)}$

Collector current

 $I_{CM} : 0.5 \text{ A}$

Collector-base voltage

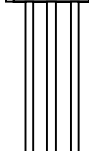
 $V_{(BR)CBO} : 40 \text{ V}$

1. EMITTER

2. BASE

3. COLLECTOR

TO-92



1 2 3

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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100 \mu\text{A}$, $I_E = 0$	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 0.1 \text{ mA}$, $I_B = 0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100 \mu\text{A}$, $I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 40 \text{ V}$, $I_E = 0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE} = 20 \text{ V}$, $I_B = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 \text{ V}$, $I_C = 0$			0.1	μA
DC current gain(note)	$H_{FE(1)}$	$V_{CE} = 1 \text{ V}$, $I_C = 50 \text{ mA}$	85		300	
	$H_{FE(2)}$	$V_{CE} = 1 \text{ V}$, $I_C = 500 \text{ mA}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500 \text{ mA}$, $I_B = 50 \text{ mA}$			0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500 \text{ mA}$, $I_B = 50 \text{ mA}$			1.2	V
Base-emitter voltage	V_{BE}	$I_E = 100 \text{ mA}$			1.4	V
Transition frequency	f_T	$V_{CE} = 6 \text{ V}$, $I_C = 20 \text{ mA}$ $f = 30 \text{ MHz}$	150			MHz

CLASSIFICATION OF $H_{FE(1)}$

Rank	B	C	D
Range	85-160	120-200	160-300