



**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	$\mu\text{A}$
Collector cut-off current	$I_{CEO}$	$V_{CE} = 20 \text{ V}$ , $I_B = 0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5 \text{ V}$ , $I_C = 0$			0.1	$\mu\text{A}$
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