

TRANSISTOR (NPN)

FEATURES

Power dissipation

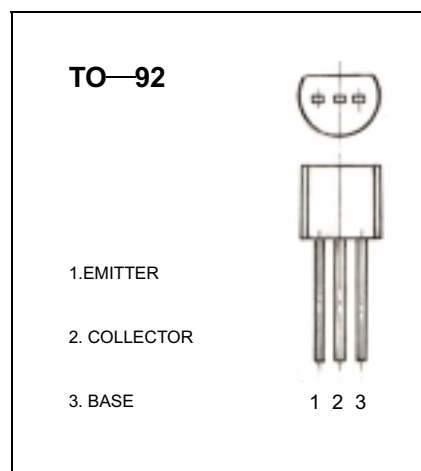
$$P_{CM} : 0.75 \text{ W (Tamb=25}^{\circ}\text{C)}$$

Collector current

$$I_{CM} : 5 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO} : 42 \text{ V}$$



ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10 \mu\text{A}, I_E = 0$	42			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1 \text{ mA}, I_B = 0$	22			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10 \mu\text{A}, I_C = 0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB} = 30 \text{ V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 7 \text{ V}, I_C = 0$			0.1	μA
DC current gain(note)	$H_{FE(1)}$	$V_{CE} = 2 \text{ V}, I_C = 0.15 \text{ mA}$	150			
	$H_{FE(2)}$	$V_{CE} = 2 \text{ V}, I_C = 500 \text{ mA}$	340		950	
	$H_{FE(3)}$	$V_{CE} = 2 \text{ V}, I_C = 2000 \text{ mA}$	250			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 3000 \text{ mA}, I_B = 100 \text{ mA}$			0.35	V

CLASSIFICATION OF $H_{FE(2)}$

Rank	R	T
Range	340-600	560-950