



TO-92 Plastic-Encapsulated Transistors

2SC1008 TRANSISTOR (NPN)

FEATURES

Power dissipation

$$P_{CM}: 0.8 \text{ W (Tamb=25°C)}$$

Collector current

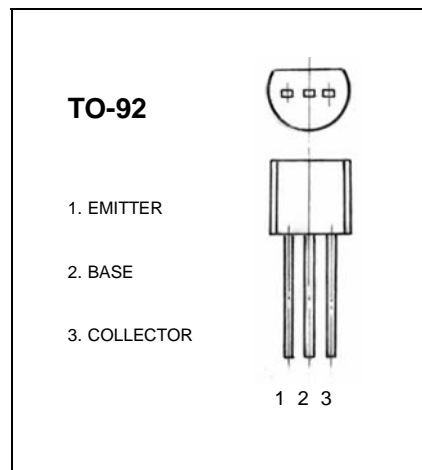
$$I_{CM}: 0.7 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: 80 \text{ V}$$

Operating and storage junction temperature range

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



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

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu\text{A}, I_E = 0$	80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 10\text{mA}, I_B = 0$	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu\text{A}, I_C = 0$	8			V
Collector cut-off current	I_{CBO}	$V_{CB} = 60\text{V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 2\text{V}, I_C = 50\text{mA}$	40		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}$			0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = 500\text{mA}, I_B = 50\text{mA}$			1.1	V
Transition frequency	f_T	$V_{CE} = 10\text{V}, I_C = 50\text{mA}$	30			MHz

CLASSIFICATION OF h_{FE}

Rank	R	O	Y	G
Range	40-80	70-140	120-240	200-400