



TO-92 Plastic-Encapsulated Transistors

2SC2001 TRANSISTOR (NPN)

FEATURES

Power dissipation

$$P_{CM}: 0.6 \text{ W (Tamb=25°C)}$$

Collector current

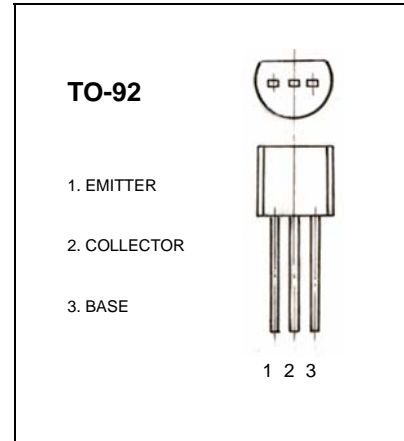
$$I_{CM}: 0.7 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: 30 \text{ V}$$

Operating and storage junction temperature range

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



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

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	30		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	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}	$V_{CB}=30 \text{ V}, I_E=0$		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	h_{FE}	$V_{CE}=1\text{V}, I_C=100\text{mA}$	90	400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=700\text{mA}, I_B=70\text{mA}$		0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=700\text{mA}, I_B=70\text{mA}$		1.2	V
Transition frequency	f_T	$V_{CE}=6\text{V}, I_C=10\text{mA}$ $f = 30\text{MHz}$	50		MHz

CLASSIFICATION OF h_{FE}

Rank	M	L	K
Range	90-180	135-270	200-400