

### 2SC388 TRANSISTOR (NPN)

#### FEATURES

Power dissipation

$$P_{CM}: 0.3 \text{ W (Tamb=25}^\circ\text{C)}$$

Collector current

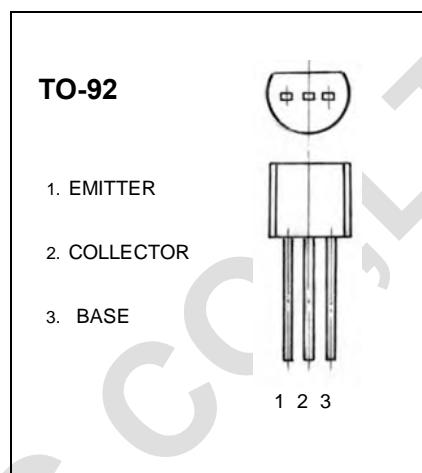
$$I_{CM}: 50 \text{ mA}$$

Collector-base voltage

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

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	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=5\text{mA}, I_B=0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	4			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=30\text{V}, I_E=0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=3\text{V}, I_C=0$			0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE}=12.5\text{V}, I_C=12.5\text{mA}$	20		200	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=15\text{mA}, I_B=1.5\text{mA}$			0.2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=15\text{mA}, I_B=1.5\text{mA}$			1.2	V
Transition frequency	$f_T$	$V_{CE}=12.5\text{V}, I_C=12.5\text{mA}$	300			MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$	0.8		2	pF
Power Gain	$G_{pe}$	$V_{CC}=12.5\text{V}, I_C=12.5\text{mA}, f=45\text{MHz}$	28		36	dB