

### 2SA836 TRANSISTOR (PNP)

#### FEATURES

Power dissipation

$$P_{CM} : 0.2 \text{ W (Tamb=25}^\circ\text{C)}$$

Collector current

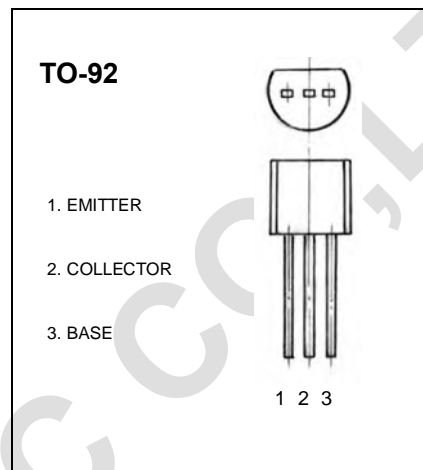
$$I_{CM} : -0.1 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO} : -55 \text{ V}$$

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	$V_{(BR)CBO}$	$I_C = -10\mu\text{A}, I_E = 0$	-55			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1 \text{ mA}, I_B = 0$	-55			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -18\text{V}, I_E = 0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -2\text{V}, I_C = 0$			-0.05	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE} = -12 \text{ V}, I_C = -2\text{mA}$	160		500	
Collector-emitter saturation voltage	$V_{CEsat}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$			-0.5	V
Base-emitter voltage	$V_{BE(ON)}$	$V_{CE} = -12 \text{ V}, I_C = -2\text{mA}$			-0.75	V
Transition frequency	$f_T$	$V_{CE} = -12 \text{ V}, I_C = -2\text{mA}$	150			MHz
Output capacitance	$C_{ob}$	$V_{CE} = -10\text{V}, I_E = 0, f = 1 \text{ MHz}$			4	pF
Noise figure	NF	$V_{CE} = -6\text{V}, I_C = 0.1 \text{ mA}, f = 1 \text{ 0Hz}, R_G = 10\text{K}\Omega$			5	dB
		$V_{CE} = -6\text{V}, I_C = 0.1 \text{ mA}, f = 1 \text{ kHz}, R_G = 10\text{K}\Omega$			1	

#### CLASSIFICATION OF $h_{FE}$

Rank	C	D
Range	160-320	250-500