



## SOT-89 Plastic-Encapsulated Transistors

### 2SB1188 TRANSISTOR (PNP)

#### FEATURES

Power dissipation

$$P_{CM}: 0.5 \text{ W (Tamb=25°C)}$$

Collector current

$$I_{CM}: -2 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: -40 \text{ V}$$

Operating and storage junction temperature range

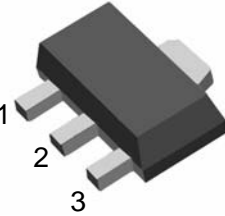
$$T_J, T_{stg}: -55°C \text{ to } +150°C$$

#### SOT-89

1. BASE

2. COLLECTOR

3. EMITTER



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

Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -50\mu\text{A}, I_E = 0$	-40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-32		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -50\mu\text{A}, I_C = 0$	-5		V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -20 \text{ V}, I_E = 0$		-1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -4 \text{ V}, I_C = 0$		-1	$\mu\text{A}$
DC current gain *	$h_{FE}$	$V_{CE} = -3\text{V}, I_C = -0.5\text{A}$	82	390	
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -2\text{A}, I_B = -0.2\text{A}$		-0.8	V
Transition frequency	$f_T$	$V_{CE} = -5\text{V}, I_C = -0.5\text{A}, f = 30\text{MHz}$	80		MHz
Output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$		65	pF

\* Measured using pulse current.

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

Rank	p	Q	R
Range	82-180	120-270	180-390
Marking	BCP	BCQ	BCR