

## SOT-23 Plastic-Encapsulated Transistors

### 2SB709A TRANSISTOR (PNP)

#### FEATURES

Power dissipation

$$P_{CM}: 0.2 \text{ W (Tamb=25°C)}$$

Collector current

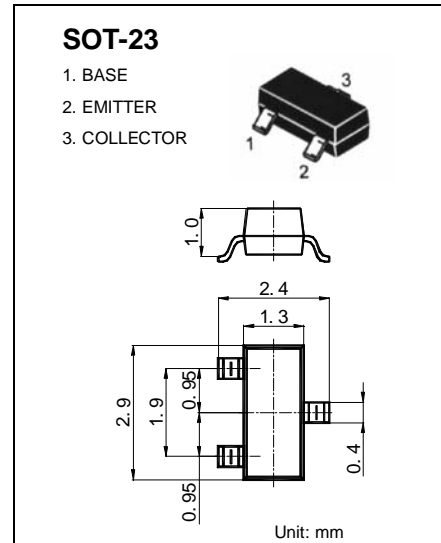
$$I_{CM}: -0.2 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: -45 \text{ V}$$

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	$V_{(BR)CBO}$	$I_C = -10 \mu A, I_E = 0$	-45		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -2 \text{ mA}, I_B = 0$	-45		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10 \mu A, I_C = 0$	-7		V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -20 \text{ V}, I_E = 0$		-0.1	$\mu A$
Collector cut-off current	$I_{CEO}$	$V_{CE} = -10 \text{ V}, I_B = 0$		-100	$\mu A$
DC current gain	$h_{FE}$	$V_{CE} = -10 \text{ V}, I_C = -2 \text{ mA}$	160	460	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -100 \text{ mA}, I_B = -10 \text{ mA}$		-0.5	V
Transition frequency	$f_T$	$V_{CE} = -10 \text{ V}, I_C = -1 \text{ mA}$ $f = 200 \text{ MHz}$	60		MHz

#### CLASSIFICATION OF $H_{FE}$

Rank	Q	R	S
Range	160-260	210-340	290-460

Marking	BR
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