

## SOT-23 Plastic-Encapsulate Transistors

### BCW60C TRANSISTOR (NPN)

#### FEATURES

Power dissipation

$$P_{CM}: 0.25 \text{ W (Tamb=25}^\circ\text{C)}$$

Collector current

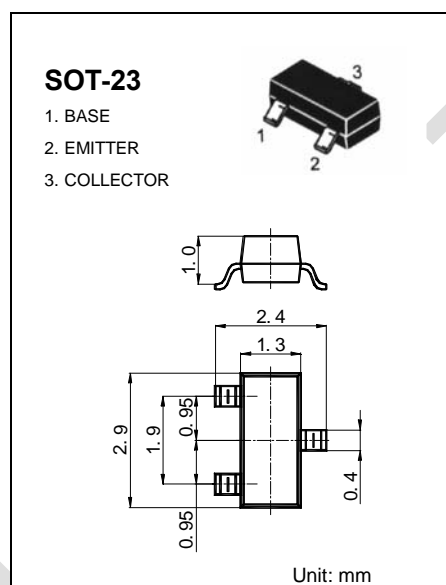
$$I_{CM}: 0.1 \text{ A}$$

Collector-base voltage

$$V_{(BR)CBO}: 32 \text{ V}$$

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	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	32		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	32		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	5		V
Collector cut-off current	$I_{CBO}$	$V_{CB}=32\text{V}, I_E=0$		0.02	$\mu\text{A}$
Collector cut-off current	$I_{EBO}$	$V_{EB}=4\text{V}, I_C=0$		0.02	$\mu\text{A}$
DC current gain	$h_{FE1}$	$V_{CE}=5\text{V}, I_C=10\mu\text{A}$	40		
	$h_{FE2}$	$V_{CE}=5\text{V}, I_C=2\text{mA}$	250	460	
	$h_{FE3}$	$V_{CE}=5\text{V}, I_C=50\text{mA}$	100		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=10\text{mA}, I_B=0.25\text{mA}$		0.35	V
		$I_C=50\text{mA}, I_B=1.25\text{mA}$		0.55	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=10\text{mA}, I_B=0.25\text{mA}$		0.85	V
		$I_C=50\text{mA}, I_B=1.25\text{mA}$		1.05	V
Base-emitter voltage	$V_{BE}$	$V_{CE}=5\text{V}, I_C=2\text{mA}$	0.55	0.75	V
Transition frequency	$f_T$	$V_{CE}=5\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	100		MHz
Output capacitance	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		5	pF

Marking	AC
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