

BCW61A

PNP EPITAXIAL SILICON TRANSISTOR

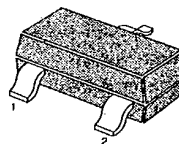
GENERAL PURPOSE TRANSISTOR

ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V_{CB0}	32	V
Collector-Emitter Voltage	V_{CE0}	32	V
Emitter-Base Voltage	V_{EB0}	5.0	V
Collector Current	I_C	100	mA
Collector Dissipation	P_C	350	mW
Storage Temperature	T_{stg}	150	$^\circ\text{C}$

• Refer to MMBT5086 for graphs

SOT-23



1. Base 2. Emitter 3. Collector

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

Characteristic	Symbol	Test Condition	Min	Max	Unit
Collector-Emitter Breakdown Voltage	BV_{CE0}	$I_C = 2\text{mA}$, $I_B = 0$	32		V
Emitter-Base Breakdown Voltage	BV_{EB0}	$I_E = 1\mu\text{A}$, $I_C = 0$	5		V
Collector Cutoff Current	I_{CES}	$V_{CE} = 32\text{V}$, $V_{BE} = 0$		20	nA
DC Current Gain	β_{FE}	$V_{CE} = 5\text{V}$, $I_C = 2\text{mA}$	120	220	
		$V_{CE} = 1\text{V}$, $I_C = 50\text{mA}$	60		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 10\text{mA}$, $I_B = 0.25\text{mA}$		0.25	V
		$I_C = 50\text{mA}$, $I_B = 1.25\text{mA}$		0.55	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 10\text{mA}$, $I_B = 0.25\text{mA}$	0.6	0.85	V
		$I_C = 50\text{mA}$, $I_B = 1.25\text{mA}$	0.68	1.05	V
Base-Emitter On Voltage	$V_{BE(on)}$	$I_C = 2\text{mA}$, $V_{CE} = 5\text{V}$	0.6	0.75	V
Output Capacitance	C_{ob}	$V_{CB} = 10\text{V}$, $I_E = 0$ $f = 1\text{MHz}$		6	pF
Noise Figure	NF	$I_C = 0.2\text{mA}$, $V_{CE} = 5\text{V}$ $R_S = 2\text{K}\Omega$, $f = 1\text{KHz}$		6	dB
Turn On Time	t_{on}	$I_C = 10\text{mA}$, $I_{B1} = 1\text{mA}$		150	ns
Turn Off Time	t_{off}	$I_{B2} = 1\text{mA}$, $V_{BB} = 3.6\text{V}$ $R_L = 990\Omega$		800	ns

Marking

