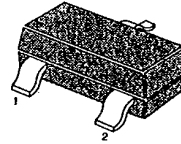


**BCW72****NPN EPITAXIAL SILICON TRANSISTOR****GENERAL PURPOSE TRANSISTOR****ABSOLUTE MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )**

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	50	V
Collector-Emitter Voltage	$V_{CE0}$	45	V
Emitter-Base Voltage	$V_{EB0}$	5	V
Collector Current	$I_C$	100	mA
Collector Dissipation	$P_C$	350	mW
Storage Temperature	$T_{stg}$	150	$^\circ\text{C}$

• Refer to MMBT5088 for graphs

SOT-23



1. Base 2. Emitter 3. Collector

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

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	$BV_{CB0}$	$I_C = 10\mu\text{A}, I_E = 0$	50			V
Collector-Emitter Breakdown Voltage	$BV_{CE0}$	$I_C = 2\text{mA}, I_B = 0$	45			V
Collector-Emitter Breakdown Voltage	$BV_{CES}$	$I_C = 2\text{mA}, V_{EB} = 0$	45			V
Emitter-Base Breakdown Voltage	$BV_{EB0}$	$I_E = 10\mu\text{A}, I_C = 0$	5			V
Collector Cutoff Current	$I_{CB0}$	$V_{CB} = 20\text{V}, I_E = 0$			100	nA
DC Current Gain	$h_{FE}$	$V_{CE} = 5\text{V}, I_C = 2\text{mA}$	200		450	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 10\text{mA}, I_B = 0.5\text{mA}$			0.25	V
		$I_C = 50\text{mA}, I_B = 2.5\text{mA}$		0.21		V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 50\text{mA}, I_B = 2.5\text{mA}$		0.85		V
Base-Emitter On Voltage	$V_{BE(on)}$	$I_C = 2\text{mA}, V_{CE} = 5\text{V}$	0.6		0.75	V
Current Gain-Bandwidth Product	$f_T$	$I_C = 10\text{mA}, V_{CE} = 5\text{V}$		300		MHz
		$f = 35\text{MHz}$				
Output Capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, I_E = 0$			4	pF
		$f = 1\text{MHz}$				
Noise Figure	NF	$I_C = 0.2\text{mA}, V_{CE} = 5\text{V}$			10	dB
		$R_B = 2\text{K}\Omega, f = 1\text{KHz}$				

Marking

