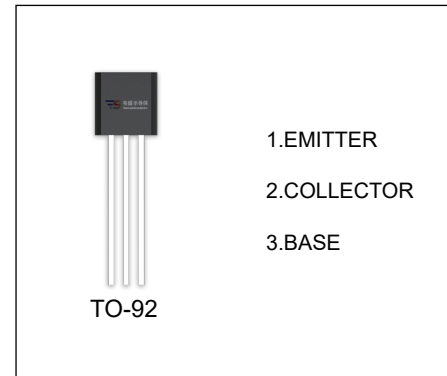


## MPSW51 TRANSISTOR (PNP)

### FEATURES

- General Purpose Amplifier Transistor
- Low Breakdown Voltage



### ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
MPSW51	TO-92	Bulk	1000pcs/Bag
MPSW51-TA	TO-92	Tape	2000pcs/Box

### MAXIMUM RATINGS ( $T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	-40	V
$V_{CEO}$	Collector-Emitter Voltage	-30	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current	-1	A
$P_C$	Collector Power Dissipation	625	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	200	$^{\circ}\text{C/W}$
$T_J, T_{stg}$	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

$T_a=25^{\circ}\text{C}$  unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -0.1\text{mA}, I_E = 0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}, I_B = 0$	-30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -0.1\text{mA}, I_C = 0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -30\text{V}, I_E = 0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -3\text{V}, I_C = 0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}$	$V_{CE} = -1\text{V}, I_C = -0.01\text{A}$	55			
	$h_{FE(2)}$	$V_{CE} = -1\text{V}, I_C = -0.1\text{A}$	60			
	$h_{FE(3)}$	$V_{CE} = -1\text{V}, I_C = -1\text{A}$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -1\text{A}, I_B = -0.1\text{A}$			-0.7	V
Base-emitter voltage	$V_{BE}$	$I_C = -1\text{A}, V_{CE} = -1\text{V}$			-1.2	V
Transition frequency	$f_T$	$V_{CE} = -10\text{V}, I_C = -50\text{mA}, f = 20\text{MHz}$	50			MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$			30	pF