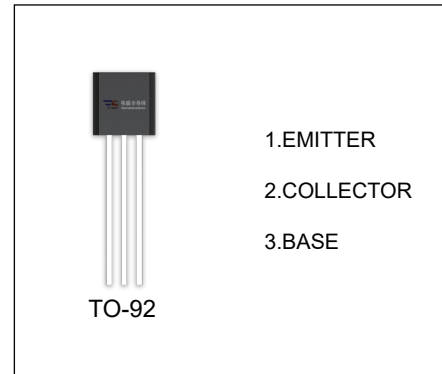


## MPSL51 TRANSISTOR (PNP)

### FEATURES

- General Purpose Amplifier



### ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
MPSL51	TO-92	Bulk	1000pcs/Bag
MPSL51-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	-100	V
$V_{CEO}$	Collector-Emitter Voltage	-100	V
$V_{EBO}$	Emitter-Base Voltage	-4	V
$I_C$	Collector Current	200	mA
$P_C$	Collector Power Dissipation	625	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	200	$^{\circ}\text{C}/\text{W}$
$T_J, T_{stg}$	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -0.1\text{mA}, I_E = 0$	-100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C = -1\text{mA}, I_B = 0$	-100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -0.01\text{mA}, I_C = 0$	-4			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -50\text{V}, I_E = 0$			-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	$h_{FE}^*$	$V_{CE} = -5\text{V}, I_C = -50\text{mA}$	40		250	
Collector-emitter saturation voltage	$V_{CE(sat)(1)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$			-0.25	V
	$V_{CE(sat)(2)}$	$I_C = -50\text{mA}, I_B = -5\text{mA}$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)(1)}$	$I_C = -10\text{mA}, I_B = -1\text{mA}$			-1.2	V
	$V_{BE(sat)(2)}$	$I_C = -50\text{mA}, I_B = -5\text{mA}$			-1.2	V
Transition frequency	$f_T$	$V_{CE} = 10\text{V}, I_C = 10\text{mA}, f = 20\text{MHz}$	60			MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$			8	pF

\*Pulse test: pulse width  $\leq 300\mu\text{s}$ , duty cycle  $\leq 2.0\%$ .