

## TO-92 Plastic-Encapsulate Transistors

### MPS750 TRANSISTOR (PNP)

#### FEATURES

- General Purpose Amplifier

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

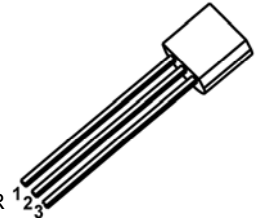
Symbol	Parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage	-60	V
$V_{CEO}$	Collector-Emitter Voltage	-40	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current -Continuous	-2	A
$P_C$	Collector Power Dissipation	625	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	200	$^{\circ}\text{C}/\text{W}$
$T_j$	Junction Temperature	150	$^{\circ}\text{C}$
$T_{stg}$	Storage Temperature	-55~+150	$^{\circ}\text{C}$

#### TO - 92

1.EMITTER

2.BASE

3.COLLECTOR



#### ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -0.1\text{mA}, I_E = 0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C = -10\text{mA}, I_B = 0$	-40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -0.01\text{mA}, I_C = 0$	-5			V
Collector cut-off current	$I_{CBO}$	$V_{CB} = -60\text{V}, I_E = 0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -4\text{V}, I_C = 0$			-0.1	$\mu\text{A}$
DC current gain	$h_{FE(1)}^*$	$V_{CE} = -2\text{V}, I_C = -50\text{mA}$	75			
	$h_{FE(2)}^*$	$V_{CE} = -2\text{V}, I_C = -500\text{mA}$	75		400	
	$h_{FE(3)}^*$	$V_{CE} = -2\text{V}, I_C = -1\text{A}$	75			
	$h_{FE(4)}^*$	$V_{CE} = -2\text{V}, I_C = -2\text{A}$	40			
Collector-emitter saturation voltage	$V_{CE(sat)(1)}^*$	$I_C = -2\text{A}, I_B = -200\text{mA}$			-0.5	V
	$V_{CE(sat)(2)}^*$	$I_C = -1\text{A}, I_B = -100\text{mA}$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}^*$	$I_C = -1\text{A}, I_B = -100\text{mA}$			-1.2	V
Base-emitter voltage	$V_{BE}^*$	$I_C = -1\text{A}, V_{CE} = -2\text{V}$			-1.0	V
Transition frequency	$f_T$	$V_{CE} = -5\text{V}, I_C = -50\text{mA}, f = 100\text{MHz}$	75			MHz

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