



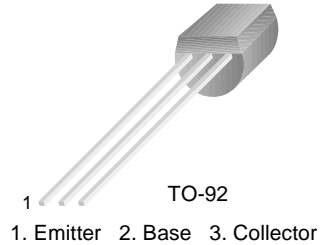
ON Semiconductor®

# MPS751

MPS751

## Silicon PNP Transistor (Note 1)

- Low Saturation Voltage



## Absolute Maximum Ratings $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$V_{CEO}$	Collector-Emitter Voltage	-60	V
$I_C$	Collector Current (DC)	2	A
$P_C$	Collector Dissipation ( $T_a=25^\circ\text{C}$ ) (Note 2, 3)	625	mW
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	- 55 ~ 150	$^\circ\text{C}$

## Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

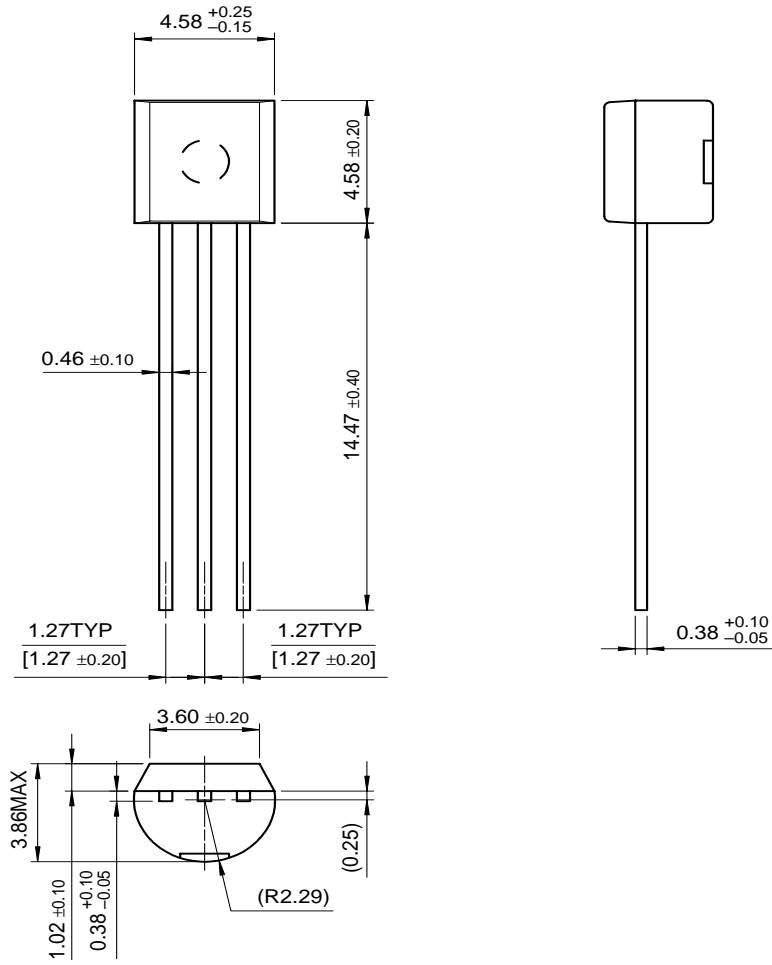
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$BV_{CBO}$	Collector-Base Voltage	$I_C = 100\mu\text{A}$	-80			V
$BV_{CEO}$	Collector-Emitter Voltage	$I_C = 10\text{mA}$	-60			V
$BV_{EBO}$	Emitter-Base Voltage	$I_E = 10\mu\text{A}$	-5			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = 30\text{V}$			100	nA
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = 3\text{V}$			100	nA
$h_{FE}$	DC Current Gain	$V_{CE} = 2\text{V}, I_C = 50\text{mA}$ $V_{CE} = 2\text{V}, I_C = 500\text{mA}$ $V_{CE} = 2\text{V}, I_C = 1\text{A}$ $V_{CE} = 2\text{V}, I_C = 2\text{A}$	75 75 75 40			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 2\text{A}, I_B = 200\text{mA}$ $I_C = 1\text{A}, I_B = 100\text{mA}$			0.5 0.3	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 1\text{A}, I_B = 100\text{mA}$			1.2	V
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = 5\text{V}, I_C = 2\text{mA}$			1	V
$f_T$	Current gain Bandwidth Product	$V_{CE} = 5\text{V}, I_C = 50\text{mA}$ $f = 100\text{MHz}$	75			MHz

Notes:


1. These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.
3. These ratings are based on a maximum junction temperature of 150degrees C.

# Package Dimensions

## TO-92



Dimensions in Millimeters

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