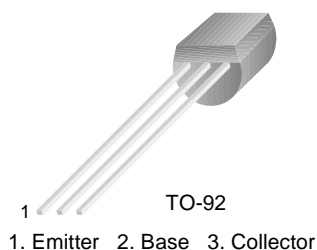


MPS751

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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