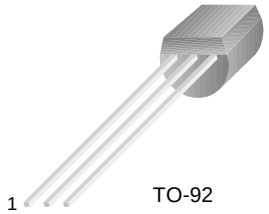
FAIRCHILD
SEMICONDUCTOR®

MPS651

Switching and Amplifier Applications



TO-92

1. Emitter 2. Base 3. Collector

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings T_a=25°C unless otherwise noted

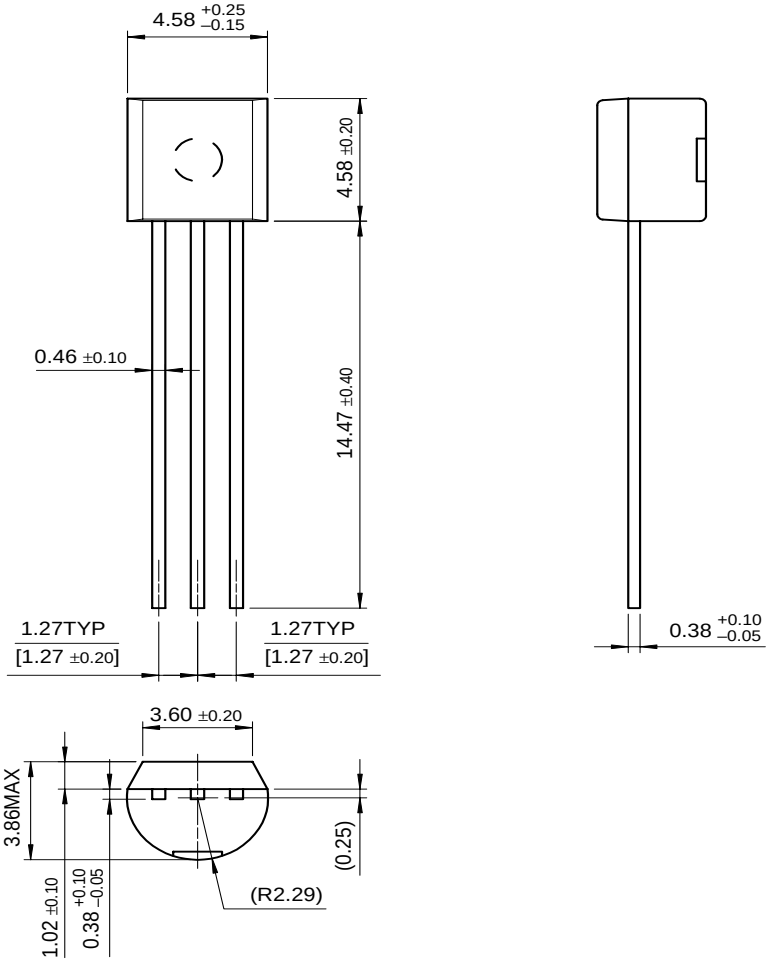
Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	0.8	A
P_C	Collector Dissipation	625	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics T_a=25°C unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Voltage	I_C=100μA, I_E=0	80			V
BV_{CEO}	Collector-Emitter Voltage	I_C=10mA, I_B=0	60			V
BV_{EBO}	Emitter- Base Voltage	I_C=10μA, I_C=0	5			V
I_{CBO}	Collector Cut-off Current	V_{CB}=80V, I_E=0			0.1	μA
I_{EBO}	Emitter Cut-off Current	V_{EB}=4.0V, I_C=0			0.1	μA
h_{FE1} h_{FE2} h_{FE3} h_{FE4}	DC Current Gain	V_{CE}=2V, I_C=50mA V_{CE}=2V, I_C=500mA V_{CE}=2V, I_C=1.0A V_{CE}=2V, I_C=2.0A	75 75 75 40			
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C=1.0A, I_B=100mA I_C=2.0A, I_B=200mA			300 500	mV
V_{BE} (sat)	Base-Emitter Saturation Voltage	I_C=1.0A, I_B=100mA			1.2	V
V_{BE} (on)	Base-Emitter On Voltage	V_{CE}=2.0V, I_C=1.0A			1.0	V
f_T	Current Gain Band Width Product	V_{CE}=5.0V, I_C=50mA, f=100MHz	75			MHz

Package Dimensions

TO-92



Dimensions in Millimeters

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The Power Franchise™		OPTOLOGIC®	SILENT SWITCHER®	VCX™
Programmable Active Droop™		OPTOPLANAR™	SMART START™	

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Definition of Terms

Datasheet Identification	Product Status	Definition
Advance Information	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
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Obsolete	Not In Production	This datasheet contains specifications on a product that has been discontinued by Fairchild semiconductor. The datasheet is printed for reference information only.

MPS651

NPN Medium Power Transistor

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- Quality and reliability
- Design center

Product status/pricing/packaging BUY

Product	Product status	Pb-free Status	Pricing*	Package type	Leads	Packing method	Package Marking Convention**
MPS651	Full Production	Full Production	$0.075	TO-92	3	BULK	Line 1: **$Y** (Fairchild logo) **&Z** (Asm. Plant Code) **&3** (3-Digit Date Code) Line 2: MPS Line 3: 651
MPS651_D26Z	Full Production	Full Production	N/A	TO-92	3	TAPE REEL	Line 1: **$Y** (Fairchild logo) **&Z** (Asm. Plant Code) **&3** (3-Digit Date Code) Line 2: MPS Line 3: 651

* Fairchild 1,000 piece Budgetary Pricing

** A sample button will appear if the part is available through Fairchild's on-line samples program. If there is no sample button, please contact a Fairchild distributor to obtain samples

Indicates product with Pb-free second-level interconnect. For more information click here.

Package marking information for product MPS651 is available. Click here for more information .

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Qualification Support

Click on a product for detailed qualification data

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MPS651
MPS651_D26Z

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