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[Fairchild Semiconductor](#)  
[2N5366](#)

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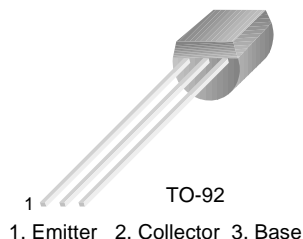
[sales@integrated-circuit.com](mailto:sales@integrated-circuit.com)



## 2N5366

### PNP General Purpose Amplifier

- This device is designed for general purpose amplifiers applications at collector currents to 300mA.
- Sourced from process 68.



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

Symbol	Parameter	Value	Units
$V_{CEO}$	Collector-Emitter Voltage	40	V
$V_{CBO}$	Collector-Base Voltage	40	V
$V_{EBO}$	Emitter-Base Voltage	4.0	V
$I_C$	Collector current - Continuous	500	mA
$T_J, T_{STG}$	Operating and Storage Junction Temperature Range	-55 ~ +150	$^\circ\text{C}$

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

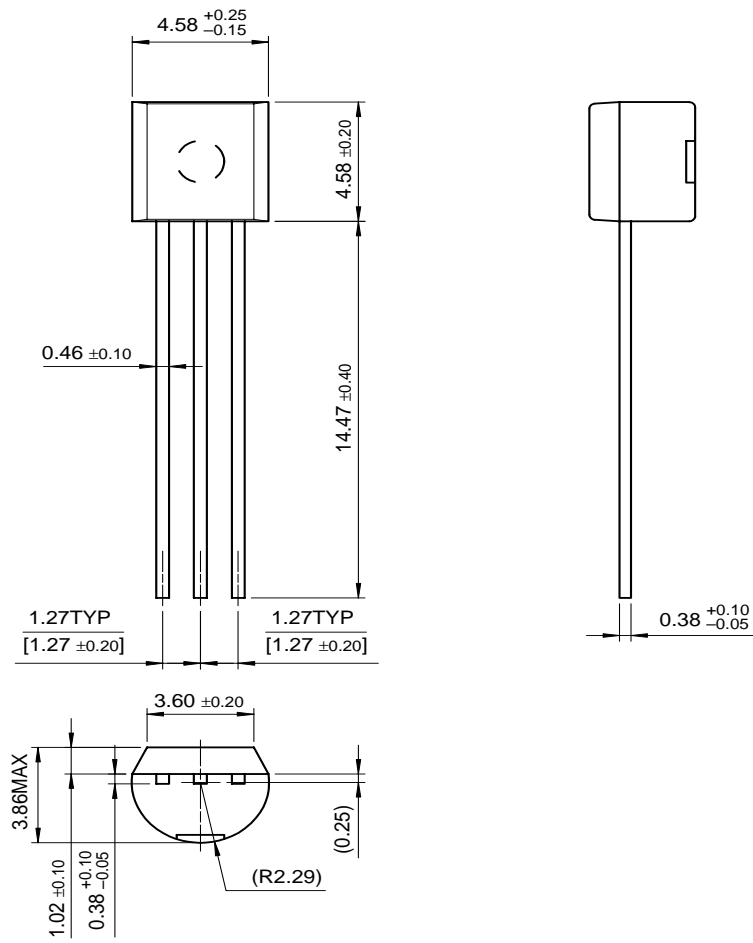
Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
$V_{CBO}$	Collector-Base Breakdown Voltage	$I_C = 10\mu\text{A}$	40			V
$V_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 10\text{mA}$	40			V
$V_{EBO}$	Emitter-Base Breakdown Voltage	$I_C = 10\mu\text{A}$	4.0			V
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = 40\text{V}$			100	nA
$I_{CES}$	Collector Cut-off Current	$V_{CB} = 40\text{V}$			100	nA
$I_{EBO}$	Emitter Cut-off Current	$V_{EB} = 4.0\text{V}$			10	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$V_{CE} = 10\text{V}, I_C = 2.0\text{mA}$ $V_{CE} = 1.0\text{V}, I_C = 50\text{mA}$ $V_{CE} = 5.0\text{V}, I_C = 300\text{mA}$	80 100 40		300	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 50\text{mA}, I_B = 2.5\text{mA}$ $I_C = 300\text{mA}, I_B = 30\text{mA}$			0.25 1.0	V
$V_{BE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 50\text{mA}, I_B = 2.5\text{mA}$ $I_C = 300\text{mA}, I_B = 30\text{mA}$			1.1 2.0	
$V_{BE(on)}$	Base-Emitter On Voltage	$V_{CE} = 10\text{V}, I_C = 2.0\text{mA}$	0.5		0.8	V
$C_{ob}$	Output Capacitance	$V_{CB} = 10\text{V}, f = 1\text{MHz}$			8.0	pF
$C_{ib}$	Input Capacitance	$V_{CB} = 0.5\text{V}, f = 1\text{MHz}$			35	pF
$h_{fe}$	Small-Signal Current Gain	$V_{CE} = 10\text{V}, I_C = 2.0\text{mA}, f = 1\text{MHz}$	80	450		

### Thermal Characteristics $T_A=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Max.	Units
$P_D$	Total Device Dissipation Derate above $25^\circ\text{C}$	625 5.0	mW mW/ $^\circ\text{C}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	200	$^\circ\text{C}/\text{W}$

Package Dimensions

TO-92



Dimensions in Millimeters

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CoolFET™	FASTr™	MicroFET™	PowerTrench®	SuperSOT™-6
CROSSVOLT™	FRFET™	MicroPak™	QFET™	SuperSOT™-8
DOME™	GlobalOptoisolator™	MICROWIRE™	QS™	SyncFET™
EcoSPARK™	GTO™	MSX™	QT Optoelectronics™	TinyLogic™
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CoolFET <sup>™</sup>	FAST <sup>r</sup> <sup>™</sup>	MicroFET <sup>™</sup>	PowerTrench <sup>®</sup>	SuperSOT <sup>™</sup> -6
CROSSVOLT <sup>™</sup>	FRFET <sup>™</sup>	MicroPak <sup>™</sup>	QFET <sup>™</sup>	SuperSOT <sup>™</sup> -8
DOME <sup>™</sup>	GlobalOptoisolator <sup>™</sup>	MICROWIRE <sup>™</sup>	QS <sup>™</sup>	SyncFET <sup>™</sup>
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