

Rochester Electronics Manufactured Components

Rochester branded components are manufactured using either die/wafers purchased from the original suppliers or Rochester wafers recreated from the original IP. All recreations are done with the approval of the OCM.

Parts are tested using original factory test programs or Rochester developed test solutions to guarantee product meets or exceed the OCM data sheet.

Quality Overview

- ISO-9001
- AS9120 certification
- Qualified Manufacturers List (QML) MIL-PRF-35835
 - Class Q Military
 - Class V Space Level
- Qualified Suppliers List of Distributors (QSLD)
 - Rochester is a critical supplier to DLA and meets all industry and DLA standards.

Rochester Electronics, LLC is committed to supplying products that satisfy customer expectations for quality and are equal to those originally supplied by industry manufacturers.

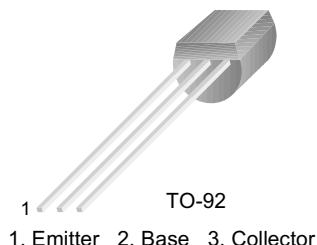
The original manufacturer's datasheet accompanying this document reflects the performance and specifications of the Rochester manufactured version of this device. Rochester Electronics guarantees the performance of its semiconductor products to the original OEM specifications. 'Typical' values are for reference purposes only. Certain minimum or maximum ratings may be based on product characterization, design, simulation, or sample testing.

2N5550

2N5550

Amplifier Transistor

- Collector-Emitter Voltage: $V_{CE0} = 140V$
- Collector Dissipation: $P_C(\text{max}) = 625mW$



NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings $T_a = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	160	V
V_{CEO}	Collector-Emitter Voltage	140	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	600	mA
P_C	Collector Dissipation	625	mW
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	-55 ~ 150	$^\circ C$

• Refer to 2N5551 for graphs

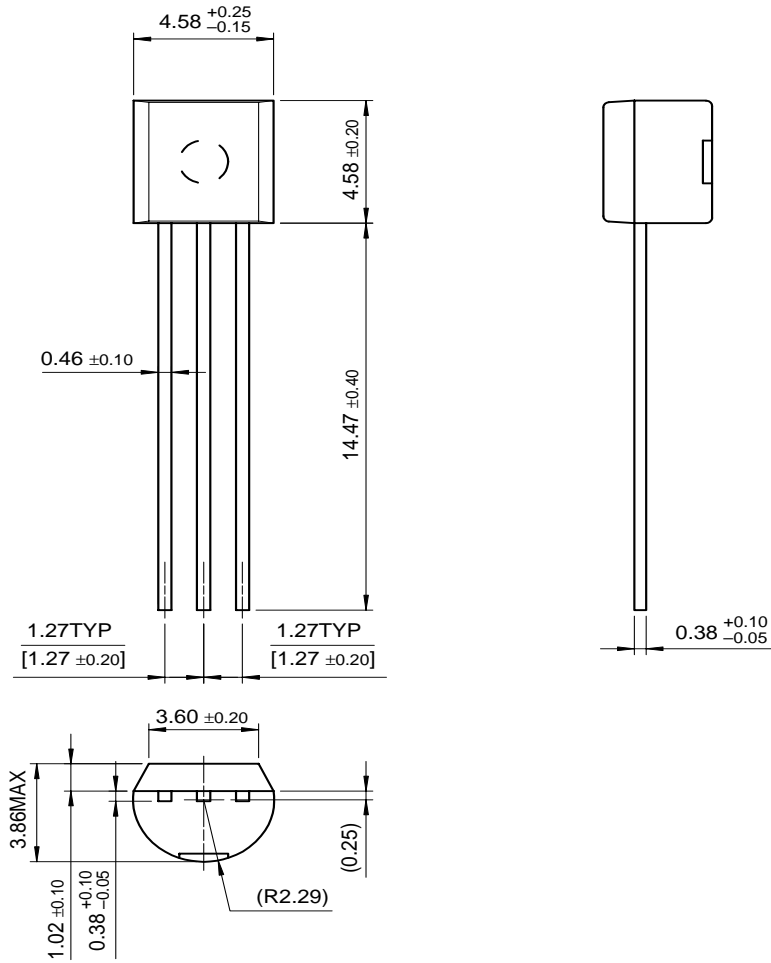
Electrical Characteristics $T_a = 25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	$I_C = 100\mu A, I_E = 0$	160			V
BV_{CEO}	* Collector-Emitter Breakdown Voltage	$I_C = 1mA, I_B = 0$	140			V
BV_{EBO}	Emitter-Base Breakdown Voltage	$I_E = 10\mu A, I_C = 0$	6			V
I_{CBO}	Collector Cut-off Current	$V_{CB} = 100V, I_E = 0$			100	nA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = 4V, I_C = 0$			50	nA
h_{FE}	* DC Current Gain	$I_C = 1mA, V_{CE} = 5V$ $I_C = 10mA, V_{CE} = 5V$ $I_C = 50mA, V_{CE} = 5V$	60 60 20		250	
$V_{CE}(\text{sat})$	* Collector-Emitter Saturation Voltage	$I_C = 10mA, I_B = 1mA$ $I_C = 50mA, I_B = 5mA$			0.15 0.25	V
$V_{BE}(\text{sat})$	* Base-Emitter Saturation Voltage	$I_C = 10mA, I_B = 1mA$ $I_C = 50mA, I_B = 5mA$			1 1.2	V
f_T	Current Gain Bandwidth Product	$I_C = 10mA, V_{CE} = 10V,$ $f = 100MHz$	100		300	MHz
C_{ob}	Output Capacitance	$V_{CB} = 10V, I_E = 0, f = 1MHz$			6	pF
NF	Noise Figure	$I_C = 250\mu A, V_{CE} = 5V$ $R_S = 1K\Omega$ $f = 10Hz \text{ to } 15.7KHz$			10	dB

* Pulse Test: Pulse Width $\leq 300\mu s$, Duty Cycle $\leq 2\%$

Package Dimensions

TO-92



Dimensions in Millimeters

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FASTr™	SuperSOT™-3	
GTO™	SuperSOT™-6	

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2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

PRODUCT STATUS DEFINITIONS

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.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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.

2N5550TAR	Full Production	 Full Production	\$0.0265	TO-92	3	AMMO	Line 1: 2N Line 2: 5550 Line 3: -&3
2N5550TF	Full Production	 Full Production	\$0.0265	TO-92	3	TAPE REEL	Line 1: 2N Line 2: 5550 Line 3: -&3
2N5550TFR	Full Production	 Full Production	\$0.0265	TO-92	3	TAPE REEL	Line 1: 2N Line 2: 5550 Line 3: -&3
2N5550_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: 2N Line 3: 5550

* 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 2N5550 is available. [Click here for more information](#).

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Models

Package & leads	Condition	Temperature range	Software version	Revision date
PSPICE				
TO-92-3	Electrical	25°C	N/A	N/A

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Qualification Support

Click on a product for detailed qualification data

Product
2N5550BU
2N5550TA

2N5550TAR
2N5550TF
2N5550TFR
2N5550_D26Z

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