

*New Jersey Semi-Conductor Products, Inc.*

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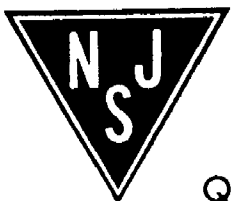
## Germanium Transistors

### 2N1192

absolute maximum ratings: (25°C)

<b>Voltage</b>	Collector to Base	$V_{CBO}$	-35 volts
	Collector to Emitter	$V_{CEB} (R_{BE} \cong 10K)$	-25 volts
	Emitter to Base	$V_{EB0}$	-10 volts
<b>Current</b>	Collector	$I_{CM}$	-200 ma
	Collector Dissipation*	$P_C$	200 mw
<b>Temperature</b>	Storage	$T_{STG}$	-65 to +85 °C
	Operating	$T_J$	+85 °C

\*Derate 3.33 mw/°C increase in ambient temperature above 25°C.



Quality Semi-Conductors

electrical characteristics: (25°C)

**SMALL SIGNAL CHARACTERISTICS**

(Unless otherwise specified  $V_{CE} = -5V$  common base;  
 $I_B = -1ma$ ;  $f = 1000$  cps)

- Output Admittance (Input AC Open Circuited)
- Input Admittance (Output AC Short Circuited)
- Reverse Voltage Transfer Ratio (Input AC Open Circuited)
- Forward Current Transfer Ratio (Common Emitter;  
Output AC Short Circuited)
- Frequency Cutoff
- Output Capacity ( $f = 1mc$ ; Input AC Open Circuited)
- Noise Figure ( $f = 1kc$ ; BW = 1 cycle)

**D-C CHARACTERISTICS**

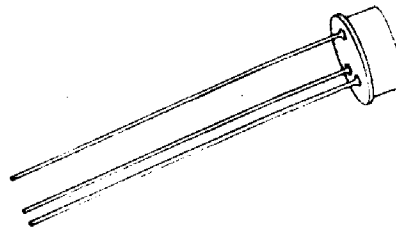
- Forward Current Gain (Common Emitter,  $I_C/I_B$ )  
 $(V_{CE} = -1V; I_C = -20ma)$   
 $(V_{CE} = -1V; I_C = -100ma)$
- Collector Saturation Voltage ( $I_C = -20ma$ ;  $I_B$  as indicated)
- Base Input Voltage, Common Emitter ( $V_{CE} = -1V$ ;  $I_C = -20ma$ )
- Collector Cutoff Current ( $V_{CBO} = -30V$ )
- Emitter Cutoff Current ( $V_{EBO} = -10V$ )
- Collector to Emitter Voltage ( $R_{BE} = 10K$  ohms;  $I_C = -.6ma$ )

	Min.	Typ.	Max.	
$h_{ob}$	.1	.45	.9	$\mu mhos$
$h_{ib}$	26	28	31	ohms
$h_{rb}$	1	5.9	14	$\times 10^{-4}$
$h_{re}$	60	80	120	
$f_{hfb}$	1.5	4.2		mc
$C_{ob}$		26	40	$\mu\mu f$
NF		6	6"	db
$h_{FE}$	70	90	140	
$h_{FE}$	62			
$V_{CE(NAT)}$ @ $I_B =$		-90		mv
		-.67		ma
$V_{BE}$		-.220	-.260	volts
$I_{CO}$		-6	-12	$\mu A$
$I_{EO}$		-4	-10	$\mu A$
$V_{CER}$	-25			volts

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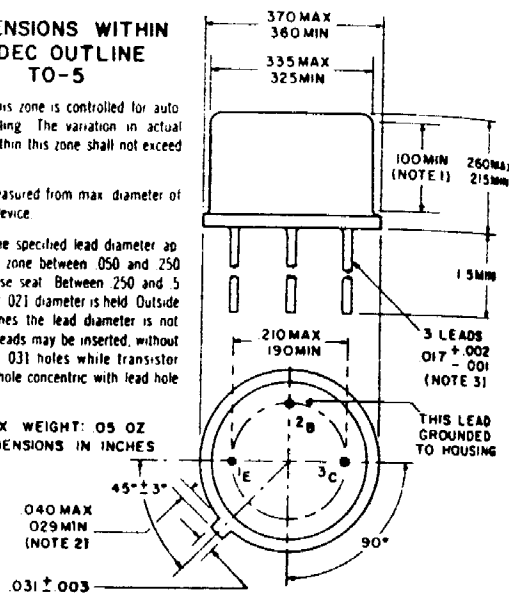
**DIMENSIONS WITHIN  
 JEDEC OUTLINE  
 TO-5**

**NOTE 1:** This zone is controlled for automatic handling. The variation in actual diameter within this zone shall not exceed 0.10.

**NOTE 2:** Measured from max diameter of the actual device.

**NOTE 3:** The specified lead diameter applies in the zone between .050 and .250 from the base seat. Between .250 and .5 maximum of .021 diameter is held. Outside of these zones the lead diameter is not controlled. Leads may be inserted, without damage, in .031 holes while transistor enters .371 hole concentric with lead hole circle.

APPROX WEIGHT: .05 OZ  
 ALL DIMENSIONS IN INCHES



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