New Jersey Semi-Conductor Products, Inc.

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Germanium Transistors

2N1192

absolute maximum ratings: (25°C)

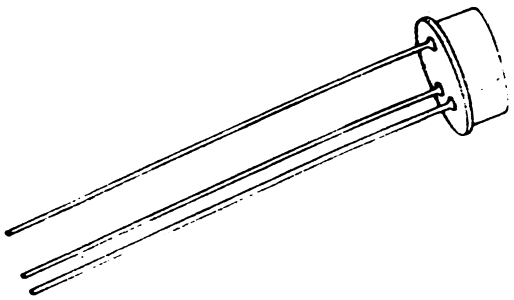
Voltage			
Collector to Base	V_{CBO}		−35 volts
Collector to Emitter	V_{CER}	($R_{BE} \leqq 10K$)	−25 volts
Emitter to Base	V_{EBO}		−10 volts
Current			
Collector	I_{CM}		−200 ma
Power			
Collector Dissipation*	P_C		200 mw
Temperature			
Storage	T_{STG}		−65 to +85 °C
Operating	T_J		+85 °C

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

Quality Semi-Conductors

electrical characteristics: (25°C)

		Min.	Typ.	Max.	
SMALL SIGNAL CHARACTERISTICS					
(Unless otherwise specified $V_c = -5V$ common base; $I_E = -1ma$; f = 1000 cps)	h_{ob}	.1	.45	.9	μmhos
Output Admittance (Input AC Open Circuited)	h_{ib}	26	28	31	ohms
Input Admittance (Output AC Short Circuited)	h_{rb}	1	5.9	14	$x10^{-4}$
Reverse Voltage Transfer Ratio (Input AC Open Circuited)	h_{fe}	60	80	120	
Forward Current Transfer Ratio (Common Emitter; Output AC Short Circuited)	f_{hfb}	1.5	4.2		mc
Frequency Cutoff	C_{ob}		26	40	μμf
Output Capacity (f = 1mc; Input AC Open Circuited)	NF		6	6*	db
Noise Figure (f = 1kc; BW = 1 cycle)					
D-C CHARACTERISTICS					
Forward Current Gain (Common Emitter, I_c/I_B) ($V_{CE} = -1V$; $I_c = -20ma$)	h_{FE}	70	90	140	
($V_{CE} = -1V$; $I_c = -100ma$)	h_{FE}	62			
Collector Saturation Voltage ($I_C = -20ma$; I_B as indicated)	$V_{CE(SAT)}$ @ $I_B =$		−90 −.67		mv ma
	V_{BE}		−.220	−.260	volts
Base Input Voltage, Common Emitter ($V_{CE} = -1V$; $I_C = -20ma$)	I_{CO}		−6	−12	μa
Collector Cutoff Current ($V_{CBO} = -30V$)	I_{EO}		−4	−10	μa
Emitter Cutoff Current ($V_{EBO} = -10V$)	V_{CER}	−25			volts
Collector to Emitter Voltage ($R_{BE} = 10K$ ohms; $I_c = -.6ma$)					



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 .010

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

