

New Jersey Semi-Conductor Products, Inc.

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absolute maximum ratings: (25°C)*

Voltages

Emitter Reverse Interbase	60 65	volts volts
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Current

RMS Emitter Peak Emitter	70 2	ma amperes†
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Power

Dissipation	600	mw**
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Temperatures

Operating Storage	-65 to +175 -65 to +175	°C °C
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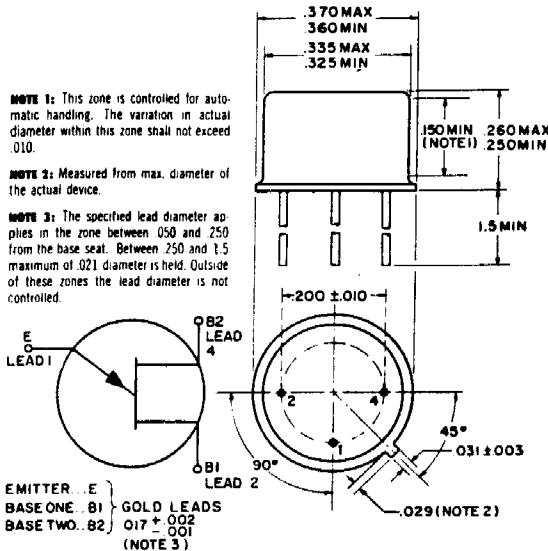
†Capacitor discharge—10 μ fd or less, 30 volts or less.

**Derate 3.9 mw/°C increase in ambient temperature. The total power dissipation (available power to Emitter and Base-Two) must be limited by the external circuitry.

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 1.5 maximum of .021 diameter is held. Outside of these zones the lead diameter is not controlled.



electrical characteristics: (25°C)

Intrinsic Standoff Ratio ($V_{BB} = 10V$)

2N490C 2N492C 2N494C

	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
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Interbase Resistance ($V_{BB} = 3V$, $I_E = 0$)

η	.51	.62	.56	.68	.62	.75
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Emitter Saturation Voltage ($V_{BB} = 10V$, $I_E = 50$ ma)

R_{BB0}	6.2	9.1	6.2	9.1	6.2	9.1	KΩ
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Modulated Interbase Current ($V_{BB} = 10V$, $I_E = 50$ ma)

V_{ESAT0}	4		4.3		4.6		volts
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Emitter Reverse Current ($V_{BRE} = 30V$, $I_{B1} = 0$)

$I_{B2(MOD)}$	6.8	22	6.8	22	6.8	22	ma
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Emitter Reverse Current ($V_{BB} = 25V$, $V_{B1} = V_P - .3V$) (Fig. 2)

I_{EO}	0.02		0.02		0.02		μa
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Peak Point Emitter Current ($V_{BB} = 25V$)

I_{EX}	0.05		0.05		0.05		μa
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Valley Point Current ($V_{BB} = 20V$, $R_{B2} = 100\Omega$)

I_V	8.0		8.0		8.0		ma
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Base-One Peak Pulse Voltage†

V_{OB1}	3.0		3.0		3.0		volts
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†The base-one peak pulse voltage is measured in Figure 1 below. This specification is used to ensure a minimum pulse amplitude for applications in SCR firing circuits and other types of pulse circuits.

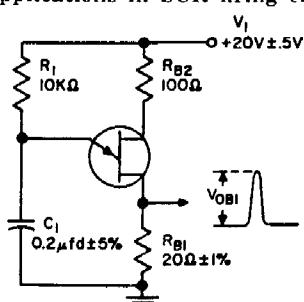


Figure 1

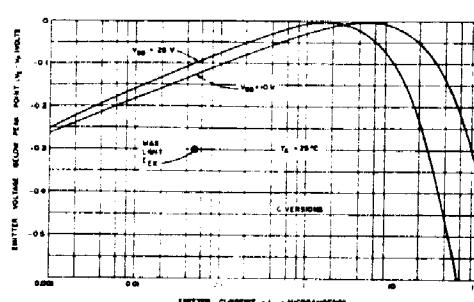
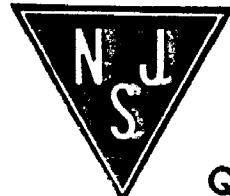


Figure 2



Quality Semi-Conductors