New Jersey Semi-Conductor Products, Inc.

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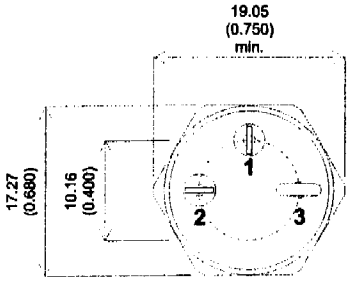
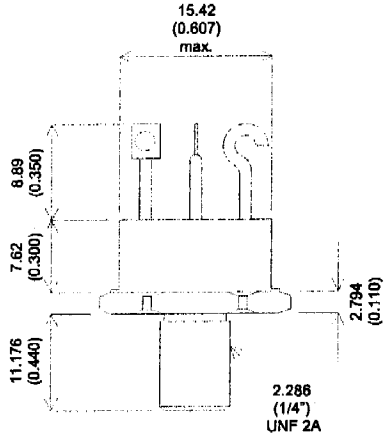
MECHANICAL DATA
Dimensions in mm (inches)

2N1617

NPN SILICON TRANSISTOR





TO–61 Metal Package.

Pin 1 – Emitter Pin 2 – Base Case – Collector

- **Bipolar Power Transistor**
- **TO–61 Hermetic Package**
- **High Current Switching**
- **LF Large Signal Amplification**

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C unless otherwise stated)

V_{CBO}	Collector – Base Voltage	80V
V_{CEO}	Collector – Emitter Voltage	70V
V_{EBO}	Emitter – Base Voltage	8V
I_C	Continuous Collector Current	5A
P_D	Total Device Dissipation	85W
	Derate above 100°C	570 mW/°C
T_{STG} , T_J	Storage and Operating Junction Temperature Range	–65 to +175°C

	Parameter	Test Conditions		Min.	Typ.	Max.	Units
I_{CBO}	Collector-Base cut-off current T_{case} = 150°C	V_{CB} = 80V	I_E = 0			10	
I_{CEX}	Collector-Emitter cut-off current	V_{CB} = 80V	V_{BE} = -1V			1	mA
I_{EBO}	Emitter-Base cut-off current	V_{EB} = 8V	I_C = 0			1	
$V_{(BR)CEO}$*	Collector-Emitter Breakdown Voltage	I_C = 100mA	I_B = 0	70			
$V_{(BR)EBO}$*	Emitter-Base Breakdown Voltage	I_B = 1mA	I_C = 0	8			V
$V_{(BR)CBO}$*	Collector-Base Breakdown Voltage	I_C = 1mA	I_E = 0	80			
h_{21E}	Static Forward Current Transfer Ratio	V_{CE} = 12V	I_C = 2A	15		75	-
V_{CEsat}	Collector-Emitter Saturation Voltage	I_C = 2A	I_B = 250mA			2	V
V_{BE}	Base-Emitter Voltage	V_{CE} = 12V	I_C = 2A			3	
f_T	Transition Frequency (f=1MHz)	V_{CE} = 30V	I_C = 300mA	3			MHz
$R_{th(J-C)}$	Thermal Resistance (junction to case)					1.75	°C/W

* Pulse test t_p = 300μs , δ ≤ 2%