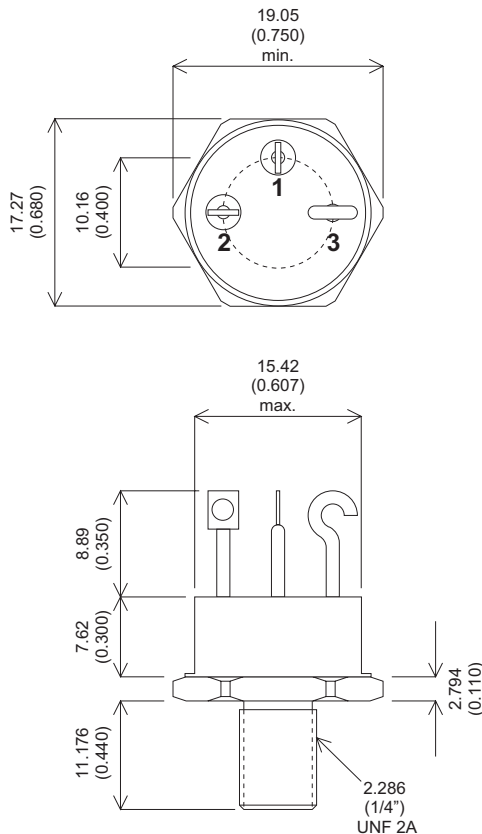


MECHANICAL DATA

Dimensions in mm (inches)

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 ($T_{case} = 25^{\circ}C$ unless otherwise stated)

V_{CBO}	Collector – Base Voltage	100V
V_{CEO}	Collector – Emitter Voltage	80V
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

Semelab Plc reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

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Issue 1

Parameter		Test Conditions		Min.	Typ.	Max.	Units
I_{CBO}	Collector-Base cut-off current $T_{case} = 150^{\circ}C$	$V_{CB} = 100V$	$I_E = 0$			10	mA
I_{CEX}	Collector-Emitter cut-off current	$V_{CB} = 100V$	$V_{BE} = -1V$			1	
I_{EBO}	Emitter-Base cut-off current	$V_{EB} = 8V$	$I_C = 0$			1	
$V_{(BR)CEO}^*$	Collector-Emitter Breakdown Voltage	$I_C = 100mA$	$I_B = 0$	80			V
$V_{(BR)EBO}^*$	Emitter-Base Breakdown Voltage	$I_B = 1mA$	$I_C = 0$	8			
$V_{(BR)CBO}^*$	Collector-Base Breakdown Voltage	$I_C = 1mA$	$I_E = 0$	100			
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	$^{\circ}C/W$

* Pulse test $t_p = 300\mu s$, $\delta \leq 2\%$