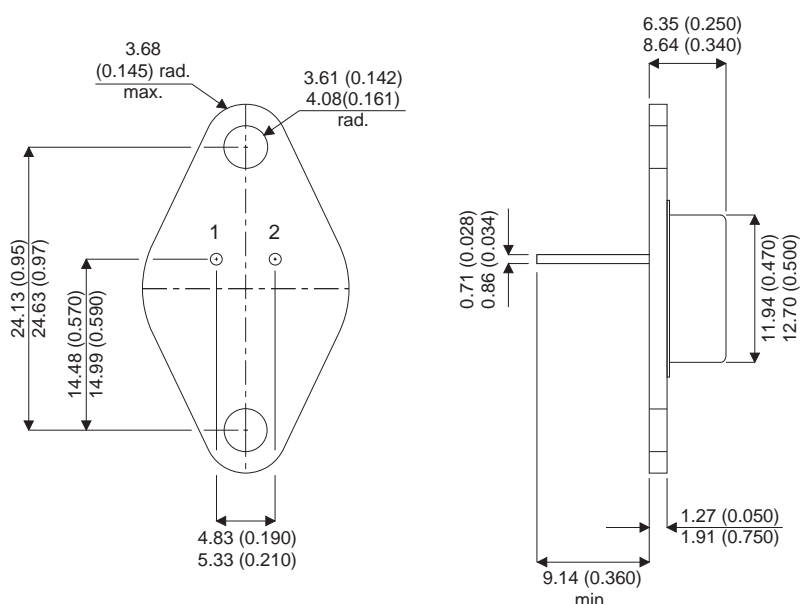


MECHANICAL DATA

Dimensions in mm (inches)



TO-66 (TO-213AA) Metal Package

PIN 1 = BASE PIN 2 = EMITTER CASE = COLLECTOR

NPN EPITAXIAL POWER TRANSISTOR IN TO66 HERMETIC PACKAGE

FEATURES

- LOW SATURATION VOTAGE
- HERMETIC METAL PACKAGE
- CECC SCREENING OPTIONS
- SPACE QUALITY LEVELS OPTIONS
- JAN LEVEL SCREENING OPTIONS

APPLICATIONS

- Driver Circuits
- Switching
- Amplifiers

ABSOLUTE MAXIMUM RATINGS

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

		2N4910X	2N4911X	2N4912X
$V_{(BR)CBO}$	Collector – Base Breakdown Voltage	40V	60V	80V
$V_{(BR)CEO}$	Collector – Emitter Breakdown Voltage	40V	60V	80V
$V_{(BR)EBO}$	Emitter – Base Breakdown Voltage		5V	
I_C	Continuous Collector Current		1A	
I_B	Base Current		1A	
P_D	Total Power Dissipation		25W	
T_C	Operating Case Temperature Range		-65 to +200°C	
T_{stg}	Storage Temperature Range		-65 to +200°C	
$R_{\theta JC}$	Thermal Resistance , Junction To Case		7.0°C/W	

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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Document Number 3933

Issue 1

Electrical Characteristics ($T_C = 25^\circ\text{C}$ unless otherwise stated.)

Parameter	Test Conditions	Min.	Typ.	Max.	Units
I_{CEO} Collector – Emitter Cut-off Current	$V_{CE} = 40\text{V}$ $I_B = 0$			0.50	mA
I_{CEX} Collector – Emitter Cut-off Current	$V_{CE} = V_{(BR)CEO}$ $V_{BE} = 1.5\text{V}$			100	μA
	$T_C = 150^\circ\text{C}$			1.0	mA
I_{CBO} Collector – Base Cut-off Current	$V_{CB} = V_{(BR)CBO}$ $I_E = 0$			0.1	mA
I_{CES} Collector – Emitter Leakage Current	$V_{CE} = V_{(BR)CEO}$ $V_{BE} = 0$			100	μA
$V_{CE(sat)}^*$ Collector – Emitter Saturation Voltage	$I_C = 1\text{A}$ $I_B = 0.1\text{A}$			0.60	V
$V_{BE(sat)}^*$ Base – Emitter Saturation Voltage	$I_C = 1\text{A}$ $I_B = 0.1\text{A}$			1.3V	V
V_{BE}^* Base – Emitter Voltage	$I_C = 1\text{A}$ $V_{CE} = 1\text{V}$			1.3V	V
h_{FE}^* DC Current Gain	$V_{CE} = 1\text{V}$ $I_C = 50\text{mA}$	40			—
	$V_{CE} = 1\text{V}$ $I_C = 500\text{mA}$	20		175	
	$V_{CE} = 1\text{V}$ $I_C = 1\text{A}$	10			

* Pulse Test: $t_p = 300\mu\text{s}$, $\delta = 2\%$.