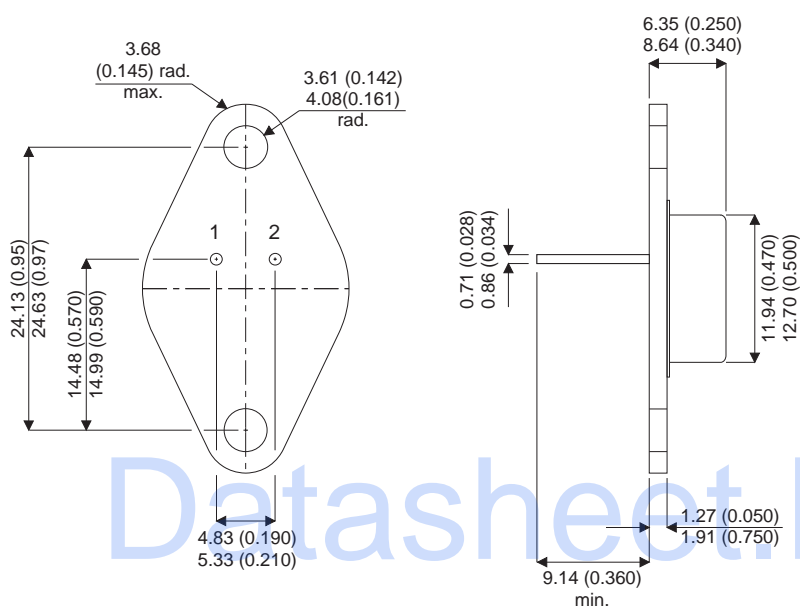


### MECHANICAL DATA

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.

**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	$\mu\text{A}$
	$T_C = 150^\circ\text{C}$			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	$\mu\text{A}$
$V_{CE(sat)}^*$ 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:  $t_p = 300\mu\text{s}$ ,  $\delta = 2\%$ .