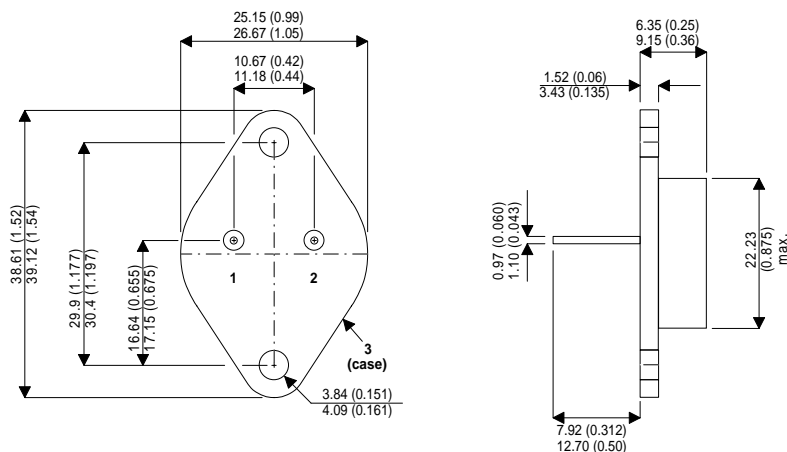


MECHANICAL DATA

Dimensions in mm (inches)

**HIGH VOLTAGE
SILICON NPN DARLINGTON
POWER TRANSISTOR**



FEATURES

- Short Switching Times
- High Reverse Voltage

Applications.

This device is especially suitable for switching-control amplifiers, power gates, switching regulators, power-switching circuits converters, inverters and control circuits.

TO-204AA (TO-3)

PIN 1 — Base, PIN 2 — Emitter, Case is Collector.

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

V_{CEO}	Collector – Emitter Voltage	400V
I_C	Collector Current	15A
I_{CM}	Peak Collector Current	20A
I_{BM}	Base Peak Current	4A
P_{tot}	Total Power Dissipation $T_{case} = 100^{\circ}C$	50W
T_{stg}, T_j	Maximum Junction and Storage Temperature Range	-65 to 175°C
R_{qJC}	Thermal Resistance Junction To Case	1.5°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 ($T_{\text{case}} = 25^{\circ}\text{C}$ unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
ELECTRICAL CHARACTERISTICS					
$V_{\text{CEO(BR)*}}$ Collector– Emitter Breakdown Voltage	$I_{\text{C}} = 500\text{mA}$ $I_{\text{B}} = 0$	400			V
I_{CEO} Collector Cut–Off Current	$V_{\text{CE}} = 400\text{V}$ $I_{\text{B}} = 0$			250	μA
				2.0	mA
$V_{\text{CE(sat)*}}$ Collector – Emitter Saturation Voltage	$I_{\text{C}} = 10\text{A}$ $I_{\text{B}} = 0.15\text{A}$			2.0	V
				2.9	
$h_{\text{FE}*}$ DC Current Gain	$I_{\text{C}} = 7\text{A}$ $V_{\text{CE}} = 1.5\text{V}$	100			-
	$I_{\text{C}} = 15\text{A}$ $V_{\text{CE}} = 5\text{V}$	20			
V_{F} Diode Forward Voltage	$I_{\text{C}} = -10\text{A}$			1.8	V

* Pulse test $t_{\text{p}} = 300\mu\text{s}$, $\delta < 2\%$