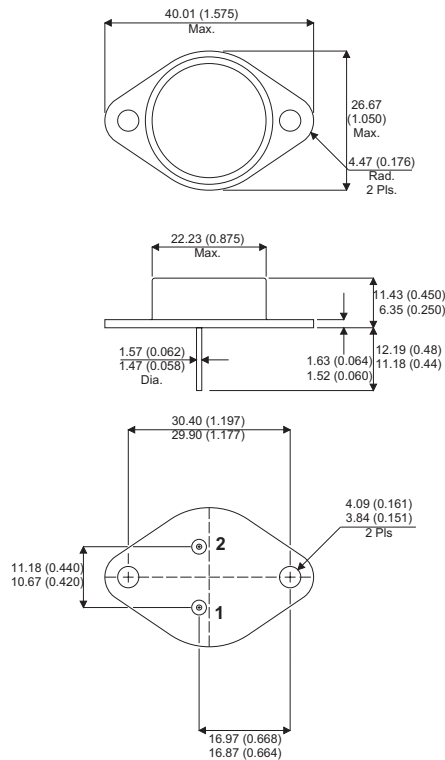


MECHANICAL DATA

Dimensions in mm



TO3 (TO-204AA)

Pin 1 – Base Pin 2 – Emitter Case – Collector

NPN POWER TRANSISTOR

FEATURES

- High Voltage
- High Speed

APPLICATIONS

- CONVERTERS
- INVERTERS
- SWITCHING REGULATORS
- MOTOR CONTROLS

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

V_{CESM}	Collector – Emitter Voltage ($V_{BE} = 0$, peak value)	1000V
V_{CEO}	Collector – Emitter Voltage (Open Base)	450V
I_C	Collector Current	8A
I_{CM}	Collector Current (Peak Value) $t_p < 2ms$	20A
I_B	Base Current (d.c.)	4A
I_{BM}	Base Current (Peak Value) $t_p < 2ms$	6A
P_{tot}	Total Power Dissipation up to $T_{mb} = 25^{\circ}C$	125W
T_{stg}	Storage Temperature	-65 to +200°C
T_J	Junction Temperature	200°C
$R_{\theta J-MB}$	Thermal Resistance (junction-mounting base)	1.4°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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Issue 1

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
BV_{CEO} Collector Emitter Breakdown Voltage	$I_B = 0$	450			V
I_{CES} Collector Cut-Off Current	$V_{CE} = V_{CESMmax}; V_{BE} = 0$ $T_C = 125^{\circ}C$			1	mA
				3	
I_{EBO} Emitter Cut-Off Current	$V_{EB} = 9V$ $I_C = 0$			10	mA
$V_{CE(sat)}$ Collector – Emitter Saturation Voltage	$I_C = 5A$ $I_B = 1A$			1.5	V
$V_{BE(sat)}$ Base – Emitter Saturation Voltage	$I_C = 5A$ $I_B = 1A$			1.5	V

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

t_{on} On Time	$I_C = 5A$ $I_{Bon} = -I_{Boff} = 1A$			1	μS
t_s Storage Time				4	
t_f Fall Time				0.8	