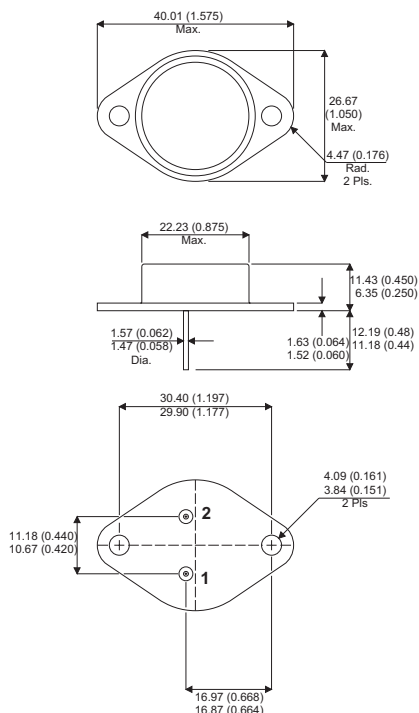


MECHANICAL DATA

Dimensions in mm



TO3 (T0-204AA)

Pin 1 – Base Pin 2 – Emitter Case – Collector

**HIGH CURRENT
NPN SILICON TRANSISTOR**

FEATURES

- HIGH SWITCHING CURRENTS
- HIGH RELIABILITY
- CECC SCREENING OPTIONS
- SPACE QUALITY LEVELS OPTIONS
- JAN LEVEL SCREENING OPTIONS

APPLICATIONS

- SWITCHING REGULATORS
- LINEAR APPLICATIONS

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

V_{CBO}	Collector – Base Voltage	160V
V_{CEO}	Collector – Emitter Voltage	125V
V_{EBO}	Emitter – Base Voltage	10V
I_C	Collector Current	25A
I_B	Base Current	6A
P_{tot}	Total Dissipation at $T_{case} = 25^{\circ}C$	175W
T_{stg}	Storage Temperature	-65 to +200°C
T_J	Maximum Operating Junction Temperature	200°C
$R_{\theta JC}$	Thermal Resistance (junction-case)	1°C/W

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Semelab plc. Telephone +44(0)1455 556565. Fax +44(0)1455 552612.

E-mail: sales@semelab.co.uk Website: <http://www.semelab.co.uk>

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

PARAMETER		TestConditions	Min.	Typ.	Max.	Unit
I_{CBO}	Collector Base Cut-Off Current	$V_{CB} = 120V$ $I_E = 0$			1	mA
I_{CER}	Collector Emitter Cut-Off Current	$V_{CE} = 80V$ $T_C = 100^{\circ}C$ $R_{BE} = 10\Omega$			10	
I_{EBO}	Emitter Base Cut-Off Current	$V_{EB} = 10V$ $I_C = 0A$			0.5	
$V_{CEO(sus)*}$	Collector Emitter Sustaining Voltage	$I_C = 100mA$	125			V
$V_{(BR)CBO*}$	Collector Base Breakdown Voltage	$I_C = 5mA$	160			
$V_{(BR)EBO*}$	Base Emitter Breakdown Voltage	$I_E = 5mA$	10			
$V_{CE(sat)*}$	Collector Emitter Saturation Voltage	$I_C = 10A$ $I_B = 1A$		0.5	1.4	
$V_{BE(sat)*}$	Base Emitter Saturation Voltage	$I_C = 10A$ $I_B = 1A$		1.4	2.0	
h_{FE}	DC Current Gain	$I_C = 10A$ $V_{CE} = 4V$	20	15	60	—
		$I_C = 20A$ $V_{CE} = 4V$				
		$I_C = 10A$ $V_{CE} = 4V$	10			
f_T	Transition Frequency	$I_C = 1A$ $V_{CE} = 15V$ $f = 10MHz$	7			MHz
t_{on}	Turn On Time	$I_C = 15A$ $I_{B1} = 1.5A$			1	μS
t_{off}	Turn Off Time	$I_C = 15A$ $I_{B1} = -I_{B2} = 1.5A$			2	

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