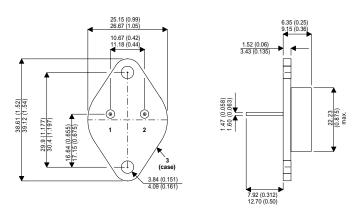
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MECHANICAL DATA Dimensions in mm(inches)



NPN SILICON POWER TRANSISTOR

FEATURES

- HIGH CURRENT
- FAST SWITCHING
- HIGH RELIABILITY

APPLICATIONS

- POWER SWITCHING CIRCUITS
- MOTOR CONTROL

TO-204AE (TO-3)

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

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C unless otherwise stated)

V _{CES}	Collector – Emitter Voltage (V _{BE} = 0V)	900V		
V _{CEO}	Collector – Emitter Voltage $(I_B = 0)$	450V		
V _{EBO}	Emitter – Base Voltage $(I_{C} = 0)$	7V		
I _C	Collector Current	15A		
I _{CM}	Peak Collector Current (t _p = 10 ms)	30A		
I _B	Base Current	10A		
P _{tot}	Total Power Dissipation at $T_{case} \le 25^{\circ}C$	175W		
T _{stg} ,	Storage Temperature	–65 to 200°C		
T _j	Junction Temperature	200°C		
$R_{ extsf{ heta}JC}$	Thermal Resistance Junction to Case	1.0°C/W		

Semelab PIc 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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ELECTRICAL CHARACTERISTICS (T_{case} = 25°C unless otherwise stated)

	Parameter	Test Conditions		Min.	Тур.	Max.	Unit
V _{CEO(BR)*}	Collector - Emitter Breakdown Voltage	I _C = 100mA		450			V
I _{CES}	Collector Cut-off Current	V _{CE} = 900V	$V_{BE} = 0V$			500	μA
			T _C = 125°C			3	mA
I _{EBO}	Emitter Cut-off Current	I _C = 0	$V_{EB} = 7V$			1.0	mA
V _{CE(sat)*}	Collector – Emitter	I _C = 10A	I _B = 2A			1.5	V
	Saturation Voltage	I _C = 7A	I _B = 1.0A			1.5	
V _{BE(sat)*}	Base – Emitter	I _C = 10A	I _B = 2A			1.8	V
	Saturation Voltage	I _C = 7A	I _B = 1.0A			1.4	
t _{on}	Turn–On Time	$I_C = 10A$ $V_{CC} = 250V$	I _{B1} =2A			0.75	μs
t _s	Storage Time	I _C = 10A	I _{B1} =2A			3	
t _f	Fall Time	V _{CC} = 250V	I _{B2} = -2A			0.8	μs

(*) Pulse test: $t_p \leq 300 \mu s$, $\delta \leq 1.5\%$

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