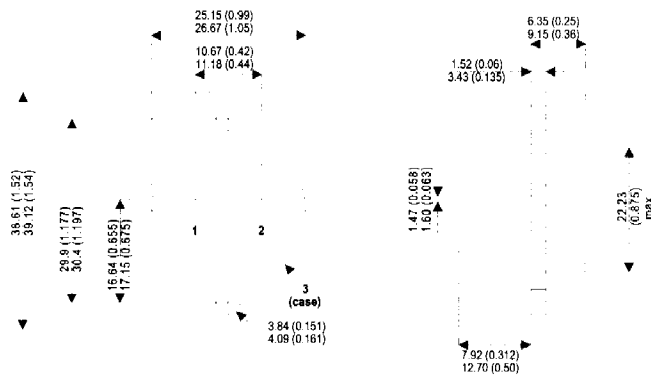


MECHANICAL DATA

Dimensions in mm(inches)



NPN SILICON POWER TRANSISTOR

FEATURES

- HIGH CURRENT
- FAST SWITCHING
- HIGH RELIABILITY

APPLICATIONS

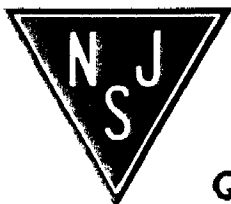
- POWER SWITCHING CIRCUITS
- MOTOR CONTROL

TO-204AE (TO-3)

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

ABSOLUTE MAXIMUM RATINGS ($T_{case} = 25^{\circ}C$ 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 $T_{case} \leq 25^{\circ}C$	175W
T_{stg}	Storage Temperature	-65 to 200°C
T_j	Junction Temperature	200°C
$R_{\theta JC}$	Thermal Resistance Junction to Case	1.0°C/W



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

BUW46

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

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$V_{CEO(BR)^*}$	Collector - Emitter Breakdown Voltage $I_C = 100mA$	450			V
I_{CES}	Collector Cut-off Current $V_{CE} = 900V$ $V_{BE} = 0V$ $T_C = 125^{\circ}C$			500	μA
I_{EBO}	Emitter Cut-off Current $I_C = 0$ $V_{EB} = 7V$			3	mA
$V_{CE(sat)^*}$	Collector - Emitter Saturation Voltage $I_C = 10A$ $I_C = 7A$ $I_B = 2A$ $I_B = 1.0A$			1.5	V
$V_{BE(sat)^*}$	Base - Emitter Saturation Voltage $I_C = 10A$ $I_C = 7A$ $I_B = 2A$ $I_B = 1.0A$			1.8	V
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	μs
t_f	Fall Time $V_{CC} = 250V$ $I_{B2} = -2A$			0.8	μs

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