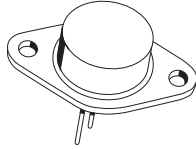


BUW34  
BUW35  
BUW36

**NPN SILICON  
POWER TRANSISTOR**



**TO-3 CASE**

**Central**<sup>TM</sup>  
**Semiconductor Corp.**

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR BUW34, BUW35, and BUW36 types are silicon NPN power transistors designed for high voltage, fast switching applications.

**MARKING: FULL PART NUMBER**

**MAXIMUM RATINGS:** ( $T_C=25^\circ\text{C}$  unless otherwise noted)

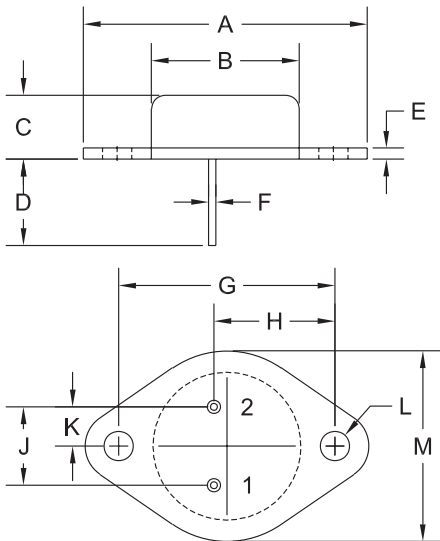
	SYMBOL	BUW34	BUW35	BUW36	UNITS
Collector-Emitter Voltage	$V_{CES}$	500	800	900	V
Collector-Emitter Voltage	$V_{CEO}$	400	400	450	V
Emitter-Base Voltage	$V_{EBO}$		7.0		V
Collector Current	$I_C$		10		A
Base Current	$I_B$		5.0		A
Power Dissipation	$P_D$		125		W
Operating and Storage Junction Temperature	$T_J, T_{stg}$	-65 to +200			$^\circ\text{C}$
Thermal Resistance	$\theta_{JC}$	1.4			$^\circ\text{C/W}$

**ELECTRICAL CHARACTERISTICS:** ( $T_C=25^\circ\text{C}$  unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CES}$	$V_{CE}=\text{Rated } V_{CES}$		500	$\mu\text{A}$
$I_{CES}$	$V_{CE}=\text{Rated } V_{CES}, T_C=125^\circ\text{C}$		3	mA
$I_{EBO}$	$V_{EB}=7.0\text{V}$		1	mA
$BV_{CEO}$	$I_C=100\text{mA}$ (BUW34, BUW35)	400		V
$BV_{CEO}$	$I_C=100\text{mA}$ (BUW36)	450		V
$V_{CE(SAT)}$	$I_C=5.0\text{A}, I_B=1.0\text{A}$		1.5	V
$V_{CE(SAT)}$	$I_C=8.0\text{A}, I_B=2.5\text{A}$ (BUW35)		1.5	V
$V_{CE(SAT)}$	$I_C=8.0\text{A}, I_B=2.5\text{A}$ (BUW36)		3.0	V
$V_{BE(SAT)}$	$I_C=5.0\text{A}, I_B=1.0\text{A}$		1.5	V
$V_{BE(SAT)}$	$I_C=8.0\text{A}, I_B=2.5\text{A}$ (BUW35, BUW36)		1.8	V
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=1.0\text{A}$	15		
$t_{on}$	$I_C=5.0\text{A}, I_{B1}=1.0\text{A}, V_{CC}=250\text{V}$		0.7	$\mu\text{s}$
$t_{off}$	$I_C=5.0\text{A}, I_{B1}=I_{B2}=1.0\text{A}, V_{CC}=250\text{V}$		3.8	$\mu\text{s}$

R0 (5-March 2008)

TO-3 CASE - MECHANICAL OUTLINE



R2

LEAD CODE:

- 1) Base
- 2) Emitter
- C) Collector

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	1.516	1.573	38.50	39.96
B (DIA)	0.748	0.875	19.00	22.23
C	0.250	0.450	6.35	11.43
D	0.433	0.516	11.00	13.10
E	0.054	0.065	1.38	1.65
F	0.035	0.045	0.90	1.15
G	1.177	1.197	29.90	30.40
H	0.650	0.681	16.50	17.30
J	0.420	0.440	10.67	11.18
K	0.205	0.225	5.21	5.72
L (DIA)	0.151	0.172	3.84	4.36
M	0.984	1.050	25.00	26.67

TO-3 (REV: R2)

MARKING: FULL PART NUMBER

R0 (5-March 2008)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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