

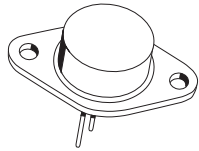
BUW34
BUW35
BUW36

NPN SILICON
POWER TRANSISTOR

CentralTM
Semiconductor Corp.

DESCRIPTION:

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



TO-3 CASE

MARKING: FULL PART NUMBER

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

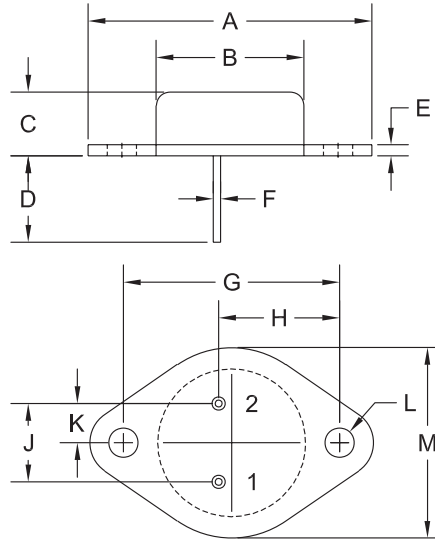
	SYMBOL	BUW34	BUW35	BUW36	UNITS
Collector-Emitter Voltage	V_{CES}	500	800	900	V
Collector-Emitter Voltage	V_{CEO}	400	400	450	V
Emitter-Base Voltage	V_{EBO}		7.0		V
Collector Current	I_C		10		A
Base Current	I_B		5.0		A
Power Dissipation	P_D		125		W
Operating and Storage Junction Temperature	T_J, T_{stg}		-65 to +200		$^\circ\text{C}$
Thermal Resistance	θ_{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	μA
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	μs
t_{off}	$I_C=5.0\text{A}, I_{B1}=I_{B2}=1.0\text{A}, V_{CC}=250\text{V}$		3.8	μs

R0 (5-March 2008)

TO-3 CASE - MECHANICAL OUTLINE



R2

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

LEAD CODE:

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

TO-3 (REV: R2)

MARKING: FULL PART NUMBER

R0 (5-March 2008)