BUV26

Switchmode Series NPN Silicon Power Transistor

Designed for high–speed applications such as:

- Switchmode Power Supplies
- High Frequency Converters
- Relay Drivers
- Driver

MAXIMUM RATINGS (T_J = 25°C unless otherwise noted)

Rating	Symbol	Value	Unit
Collector–Emitter Voltage	$V_{CEO(sus)}$	90	Vdc
Collector–Base Voltage	V_{CBO}	180	Vdc
Emitter–Base Voltage	V_{EBO}	7.0	Vdc
Collector Current – Continuous – Peak (pw 10 ms)	I_C I_{CM}	20 30	Adc Apk
Base Current – Continuous	I_B I_{BM}	4.0 6.0	Adc Adc
Total Power Dissipation @ T_C = 25°C Total Power Dissipation @ T_C = 60°C	P_D P_D	85 65	Watts Watts
Operating and Storage Junction Temperature Range	T_J, T_{stg}	–65 to +150	°C

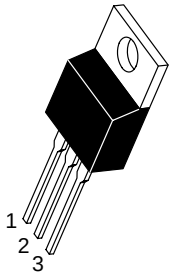
THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.76	°C/W

ON Semiconductor®

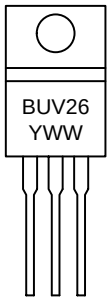
http://onsemi.com

12 AMPERES
NPN SILICON
POWER TRANSISTORS
90 VOLTS
85 WATTS



TO–220
CASE 221A
STYLE 1

MARKING DIAGRAM



Y = Year
WW = Work Week

ORDERING INFORMATION

Device	Package	Shipping
TBD	TO–220	50 Units/Rail

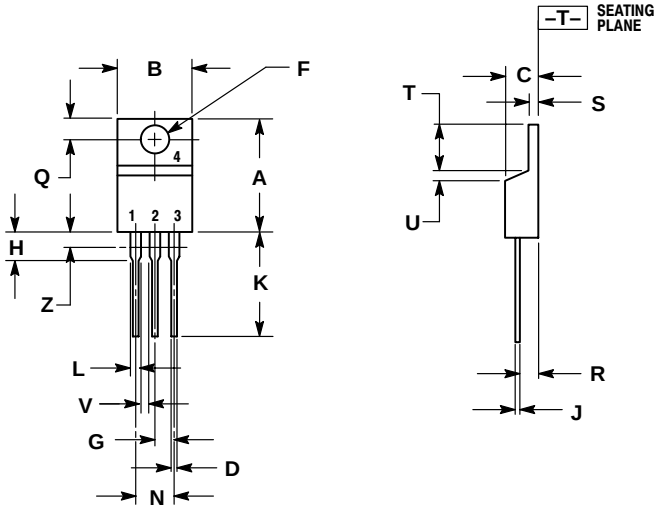
ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector–Emitter Sustaining Voltage (I_C = 200 mA, I_B = 0, L = 25 mH)	$V_{CEO(sus)}$	90	–	Vdc
Collector Cutoff Current at Reverse Bias (V_{CE} = 180 V, V_{BE} = –1.5 V, T_C = 125°C)	I_{CEX}	–	1.0	mAdc
Emitter Base Reverse Voltage (I_E = 50 mA)	V_{EBO}	7.0	30	V
Emitter Cutoff Current (V_{EB} = 5.0 V)	I_{EBO}	–	1.0	mAdc
Collector Cutoff Current (V_{CE} = 180 V, R_{BE} = 50 Ω, T_C = 125°C)	I_{CER}	–	3.0	mAdc
ON CHARACTERISTICS				
Collector–Emitter Saturation Voltage (I_C = 6.0 A, I_B = 0.4 A) (I_C = 12 A, I_B = 1.2 A)	$V_{CE(sat)}$	– –	0.6 1.5	Vdc
Base–Emitter Saturation Voltage (I_C = 12 A, I_B = 1.2 A)	$V_{BE(sat)}$	–	2.0	Vdc
SWITCHING CHARACTERISTICS (Resistive Load)				
Turn On Time	I_C = 12 A, I_B = 1.2 A	t_{on}	–	0.6	μs
Storage Time	V_{CC} = 50 V, V_{BE} = 6.0 V	t_s	–	1.0	
Fall Time	RB2 = 2.5 Ω	t_f	–	0.15	
SWITCHING CHARACTERISTICS (Inductive Load)				
Storage Time	V_{CC} = 50 V, I_C = 12 A $I_{B(end)}$ = 1.2 A, V_B = 5.0 V L_B = 0.5 pH, T_J = 125°C	T_s	–	2.0	μs
Fall Time		T_f	–	.15	

1. Pulse Test: Pulse width ≤ 300 μs; Duty cycle ≤ 2%.

PACKAGE DIMENSIONS

TO–220
CASE 221A–07
ISSUE AA



NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.
3. DIMENSION Z DEFINES A ZONE WHERE ALL BODY AND LEAD IRREGULARITIES ARE ALLOWED.

	INCHES		MILLIMETERS	
DIM	MIN	MAX	MIN	MAX
A	0.570	0.620	14.48	15.75
B	0.380	0.405	9.66	10.28
C	0.160	0.190	4.07	4.82
D	0.025	0.035	0.64	0.88
F	0.142	0.147	3.61	3.73
G	0.095	0.105	2.42	2.66
H	0.110	0.155	2.80	3.93
J	0.014	0.022	0.36	0.55
K	0.500	0.562	12.70	14.27
L	0.045	0.060	1.15	1.52
N	0.190	0.210	4.83	5.33
Q	0.100	0.120	2.54	3.04
R	0.080	0.110	2.04	2.79
S	0.045	0.055	1.15	1.39
T	0.235	0.255	5.97	6.47
U	0.000	0.050	0.00	1.27
V	0.045	---	1.15	---
Z	---	0.080	---	2.04

STYLE 1:
PIN 1. BASE
2. COLLECTOR
3. EMITTER
4. COLLECTOR

PUBLICATION ORDERING INFORMATION

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