



# BU326A

## HIGH VOLTAGE NPN SILICON POWER TRANSISTOR

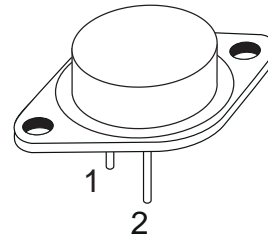
- STMicroelectronics PREFERRED SALESTYPE
- NPN TRANSISTOR
- FAST SWITCHING SPEED

### APPLICATIONS:

- POWER SUPPLIES
- LINEAR AND SWITCHING INDUSTRIAL EQUIPMENT

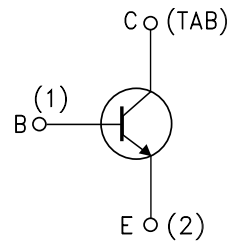
### DESCRIPTION

The BU326A is a silicon multiepitaxial mesa NPN transistor in Jedec TO-3 metal case particularly intended for switch-mode CTV supply system.



TO-3

### INTERNAL SCHEMATIC DIAGRAM



### ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
$V_{CES}$	Collector-Emitter Voltage ( $V_{BE} = 0$ )	900	V
$V_{CEO}$	Collector-Emitter Voltage ( $I_B = 0$ )	400	V
$V_{EBO}$	Emitter-Base Voltage ( $I_C = 0$ )	10	V
$I_C$	Collector Current	6	A
$I_{CM}$	Collector Peak Current	8	A
$I_B$	Base Current	3	A
$P_{tot}$	Total Power Dissipation at $T_{case} \leq 25\text{ }^{\circ}\text{C}$	75	W
$T_{stg}$	Storage Temperature	-65 to 200	$^{\circ}\text{C}$
$T_j$	Max. Operating Junction Temperature	200	$^{\circ}\text{C}$

**THERMAL DATA**

R <sub>thj-case</sub>	Thermal Resistance Junction-case	Max	2.33	°C/W
-----------------------	----------------------------------	-----	------	------

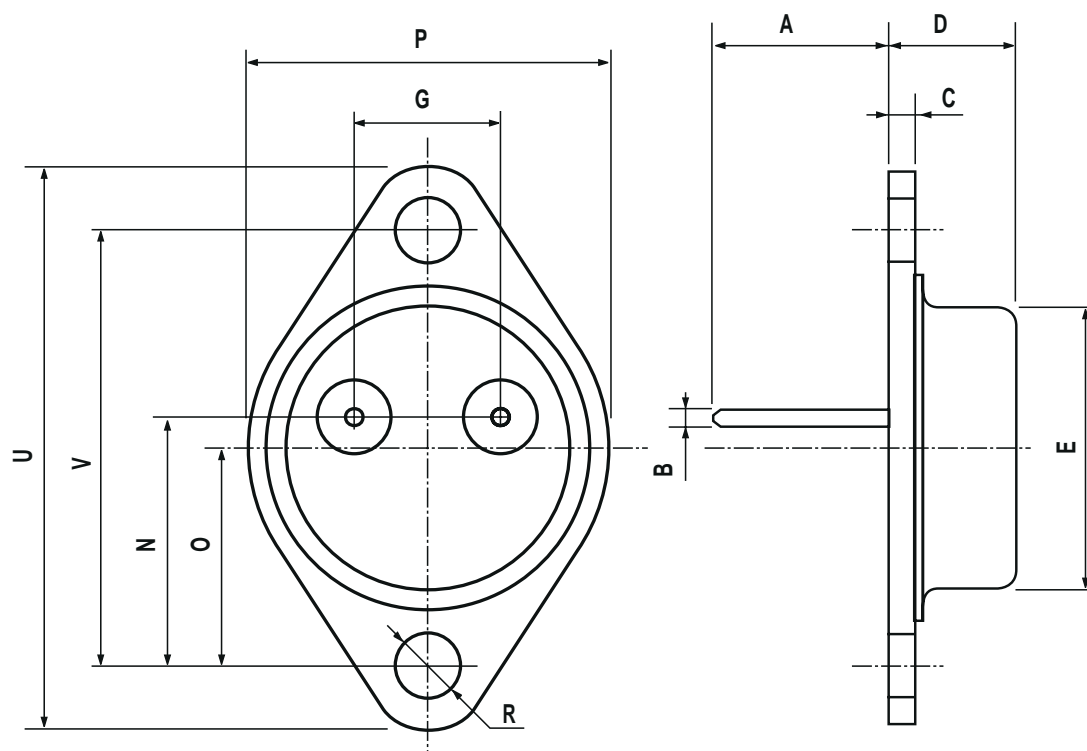
**ELECTRICAL CHARACTERISTICS** (T<sub>case</sub> = 25 °C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I <sub>CES</sub>	Collector Cut-off Current (V <sub>BE</sub> = 0)	V <sub>CE</sub> = 900 V V <sub>CE</sub> = 900 V T <sub>C</sub> = 125 °C			1 2	mA mA
I <sub>EBO</sub>	Emitter Cut-off Current (I <sub>C</sub> = 0)	V <sub>EB</sub> = 10 V			10	mA
V <sub>CEO(sus)*</sub>	Collector-Emitter Sustaining Voltage(I <sub>B</sub> = 0)	I <sub>C</sub> = 100 mA	400			V
V <sub>CE(sat)*</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 2.5 A I <sub>B</sub> = 0.5 A I <sub>C</sub> = 4 A I <sub>B</sub> = 1.25 A			1.5 3	V V
V <sub>BE(sat)*</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 2.5 A I <sub>B</sub> = 0.5 A I <sub>C</sub> = 4 A I <sub>B</sub> = 1.25 A			1.4 1.6	V
h <sub>FE*</sub>	DC Current Gain	I <sub>C</sub> = 1 A V <sub>CE</sub> = 5 V		25		
t <sub>on</sub>	Turn-on Time	I <sub>C</sub> = 2.5 A I <sub>B1</sub> = 0.5 A V <sub>CC</sub> = 250 V			0.5	μs
t <sub>s</sub>	Storage Time	I <sub>C</sub> = 2.5 A I <sub>B1</sub> = 0.5 A I <sub>B2</sub> = -1A A V <sub>CC</sub> = 250 V			3.5	μs
t <sub>f</sub>	Fall Time	I <sub>C</sub> = 2.5 A I <sub>B1</sub> = 0.5 A I <sub>B2</sub> = -1A A V <sub>CC</sub> = 250 V			0.5	μs

\* Pulsed: Pulse duration = 300 μs, duty cycle 1.5 %

## TO-3 MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	11.00		13.10	0.433		0.516
B	0.97		1.15	0.038		0.045
C	1.50		1.65	0.059		0.065
D	8.32		8.92	0.327		0.351
E	19.00		20.00	0.748		0.787
G	10.70		11.10	0.421		0.437
N	16.50		17.20	0.649		0.677
P	25.00		26.00	0.984		1.023
R	4.00		4.09	0.157		0.161
U	38.50		39.30	1.515		1.547
V	30.00		30.30	1.187		1.193



P003F

Information furnished is believed to be accurate and reliable. However, STMicroelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of STMicroelectronics. Specification mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. STMicroelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of STMicroelectronics.

The ST logo is a trademark of STMicroelectronics

© 2000 STMicroelectronics – Printed in Italy – All Rights Reserved

STMicroelectronics GROUP OF COMPANIES

Australia - Brazil - China - Finland - France - Germany - Hong Kong - India - Italy - Japan - Malaysia - Malta - Morocco -  
Singapore - Spain - Sweden - Switzerland - United Kingdom - U.S.A.

<http://www.st.com>