

## HIGH VOLTAGE NPN SILICON POWER TRANSISTOR

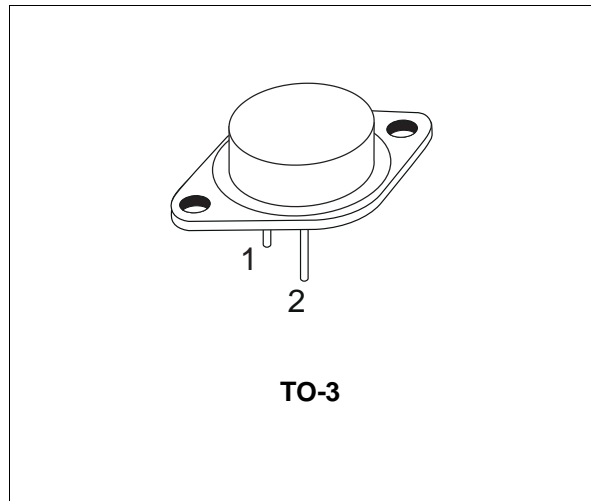
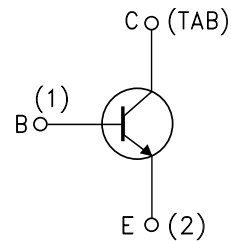
- SGS-THOMSON PREFERRED SALESTYPE
- NPN TRANSISTOR
- FAST SWITCHING SPEED

**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.


**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	$^\circ\text{C}$

## BU326A

### THERMAL DATA

$R_{thj-case}$	Thermal Resistance Junction-case	Max	2.33	$^{\circ}C/W$
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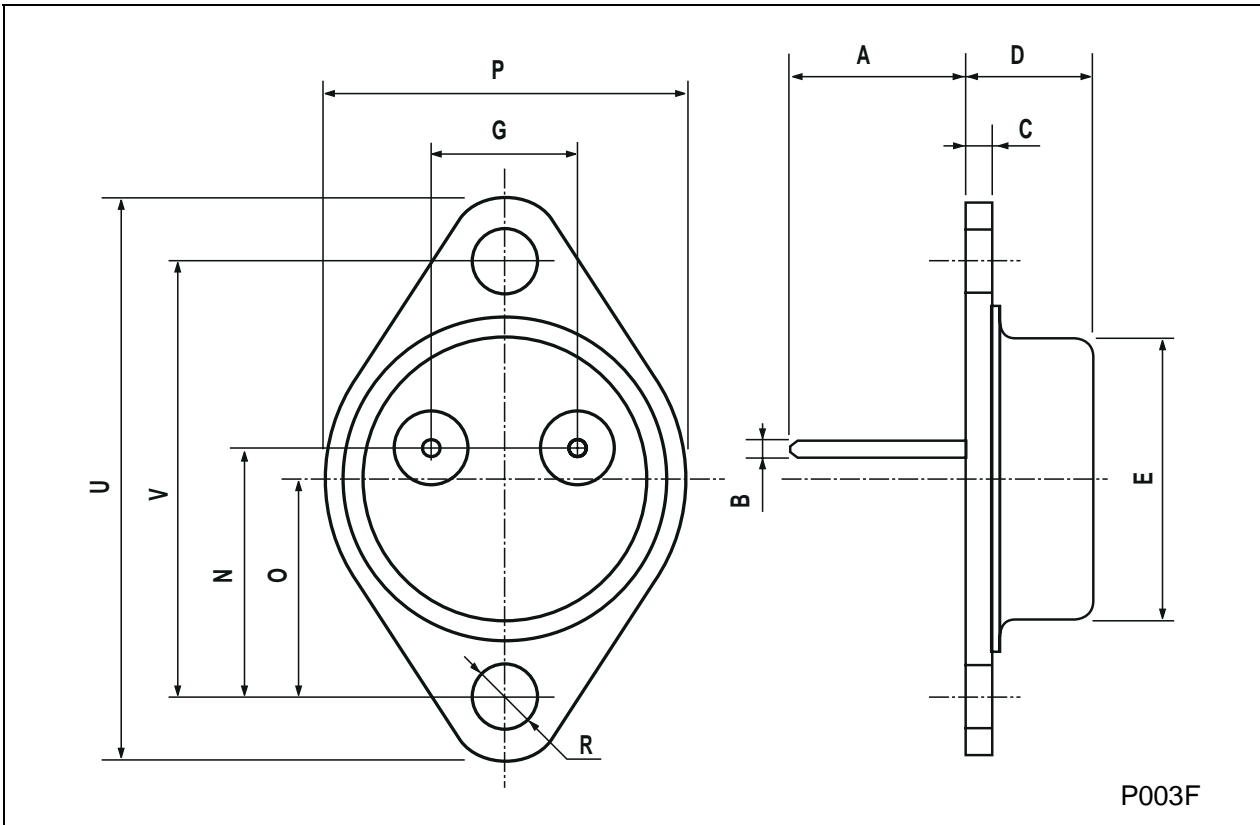
### ELECTRICAL CHARACTERISTICS ( $T_{case} = 25^{\circ}C$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$I_{CES}$	Collector Cut-off Current ( $V_{BE} = 0$ )	$V_{CE} = 900 V$ $V_{CE} = 900 V \quad T_c = 125^{\circ}C$			1 2	mA mA
$I_{EBO}$	Emitter Cut-off Current ( $I_C = 0$ )	$V_{EB} = 10 V$			10	mA
$V_{CEO(sus)*}$	Collector-Emitter Sustaining Voltage ( $I_B = 0$ )	$I_C = 100 mA$	400			V
$V_{CE(sat)*}$	Collector-Emitter Saturation Voltage	$I_C = 2.5 A \quad I_B = 0.5 A$ $I_C = 4 A \quad I_B = 1.25 A$			1.5 3	V V
$V_{BE(sat)*}$	Base-Emitter Saturation Voltage	$I_C = 2.5 A \quad I_B = 0.5 A$ $I_C = 4 A \quad I_B = 1.25 A$			1.4 1.6	V
$h_{FE*}$	DC Current Gain	$I_C = 1 A \quad V_{CE} = 5 V$		25		
$t_{on}$	Turn-on Time	$I_C = 2.5 A \quad I_{B1} = 0.5 A$ $V_{CC} = 250 V$			0.5	$\mu s$
$t_s$	Storage Time	$I_C = 2.5 A \quad I_{B1} = 0.5 A$ $I_{B2} = -1 A A \quad V_{CC} = 250 V$			3.5	$\mu s$
$t_f$	Fall Time	$I_C = 2.5 A \quad I_{B1} = 0.5 A$ $I_{B2} = -1 A A \quad V_{CC} = 250 V$			0.5	$\mu s$

\* Pulsed: Pulse duration = 300  $\mu s$ , 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



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