



**BU426  
BU426A**

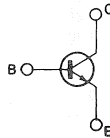
## HIGH VOLTAGE POWER SWITCH

The BU426 and BU426A are silicon multi-epitaxial mesa NPN transistors in SOT-93 plastic package, particularly intended for switch-mode CTV supply systems.

### ABSOLUTE MAXIMUM RATINGS

		BU426	BU426A
$V_{CES}$	Collector-emitter voltage ( $V_{BE} = 0$ )	800 V	900V
$V_{CEO}$	Collector-emitter voltage ( $I_B = 0$ )	375V	400V
$V_{EBO}$	Emitter-base voltage ( $I_C = 0$ )		10V
$I_C$	Collector-current		6A
$I_{CM}$	Collector-peak current ( $t_p = 2ms$ )		8A
$I_B$	Base current		3A
$P_{tot}$	Total power dissipation at $T_{case} \leq 25^\circ C$		113W
$T_{stg}$	Storage temperature		$-65^\circ C$ to $150^\circ C$
$T_j$	Junction temperature		$150^\circ C$

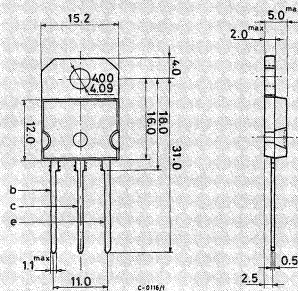
### INTERNAL SCHEMATIC DIAGRAM



### MECHANICAL DATA

Dimensions in mm

Collector connected to tab.



(sim. to TO-218) SOT-93



**THERMAL DATA**

$R_{th\ j-case}$	Thermal resistance junction-case	max.	1.1	$^{\circ}C/W$
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**ELECTRICAL CHARACTERISTICS** ( $T_{case} = 25^{\circ}C$  unless otherwise specified)

Parameter	Test conditions	Min.	Typ.	Max.	Unit
$I_{CES}$ Collector cutoff current ( $V_{BE} = 0$ )	for <b>BU426</b> $V_{CE} = 800V$ for <b>BU426A</b> $V_{CE} = 900V$ $T_{case} = 125^{\circ}C$ for <b>BU426</b> $V_{CE} = 800V$ for <b>BU426A</b> $V_{CE} = 900V$			1 1 2 2	mA mA mA mA
$I_{EBO}$ Emitter cutoff current ( $I_C = 0$ )	$V_{EB} = 10V$			10	mA
$V_{CEO(sus)}$ * Collector-emitter sustaining voltage ( $I_B = 0$ )	for <b>BU426</b> $I_C = 100mA$ for <b>BU426A</b> $I_C = 100mA$	375		400	V V
$V_{CE(sat)}$ * Collector-emitter saturation voltage	$I_C = 2.5A$ $I_B = 0.5A$ $I_C = 4A$ $I_B = 1.25A$			1.5 3	V V
$V_{BE(sat)}$ * Base-emitter saturation voltage	$I_C = 2.5A$ $I_B = 0.5A$ $I_C = 4A$ $I_B = 1.25A$			1.4 1.6	V V
$h_{FE}$ * DC current gain	$I_C = 0.6A$ $V_{CE} = 5V$		30	60	
$t_{on}$ Turn-on time	$I_C = 2.5A$ $I_{B1} = 0.5A$ $V_{CC} = 250V$		0.25	0.5	$\mu s$



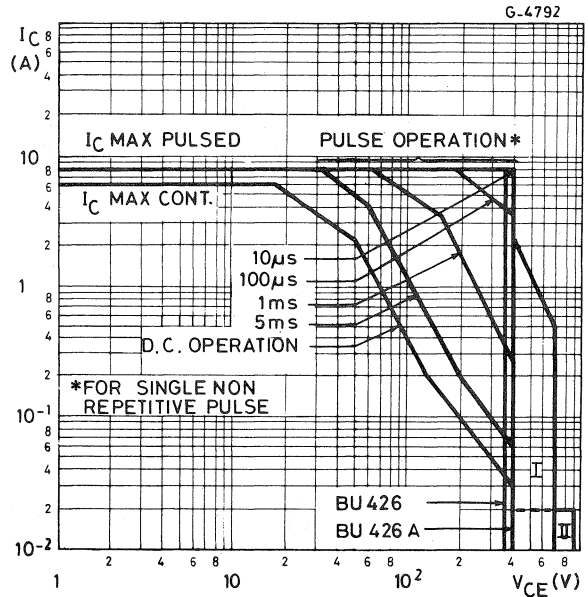
**BU426  
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**ELECTRICAL CHARACTERISTIC (Continued)**

Parameter	Test conditions	Min.	Typ.	Max.	Unit
$t_s$ Storage time	$I_C = 2.5A$ $I_{B1} = 0.5A$ $I_{B2} = -1A$ $V_{CC} = 250V$	2.5	3.5		$\mu s$
$t_f$ Fall time		0.2	0.5		$\mu s$
$t_f$ Fall time	$I_C = 2.5A$ $I_{B1} = 0.5A$ $I_{B2} = -1A$ $V_{CC} = 250V$ $T_{case} = 100^\circ C$			0.75	$\mu s$

\* Pulsed: pulse duration = 300  $\mu s$  duty cycle = 1.5%.

**Safe operating areas**



I = Area of permissible operation driving turn-on provided  $R_{BE} = 100\Omega$  and  $t_p \leq 0.6 \mu s$ .

II = Area of permissible operation with  $V_{BE} \leq 0$ ;  $t_p \leq 2 \mu s$ .

For the others characteristic curves see the BU326 type