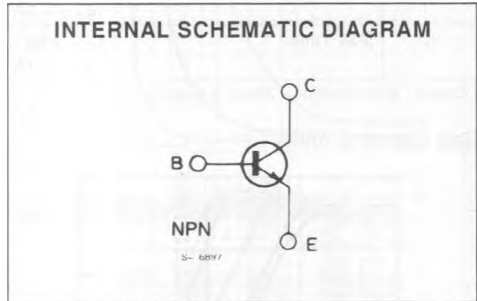
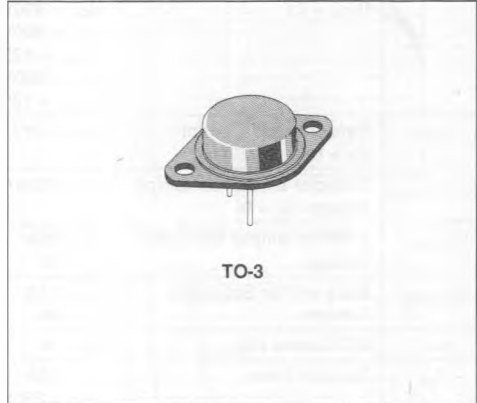


HIGH VOLTAGE POWER SWITCH

DESCRIPTION

The BU326 and BU326A are silicon multi-epitaxial mesa NPN transistors in Jedec TO-3 metal case particularly intended for switch-mode CTV supply system.



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value		Unit
		BU326A	BU326	
V_{CES}	Collector-emitter Voltage ($V_{BE} = 0$)	900	800	V
V_{CEO}	Collector-emitter Voltage ($I_B = 0$)	400	325	V
V_{EBO}	Base-emitter 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 $T_{case} \leq 25^\circ C$	75		W
T_{sig}	Storage Temperature	- 65 to 200		$^\circ C$
T_j	Junction Temperature	200		$^\circ C$

THERMAL DATA

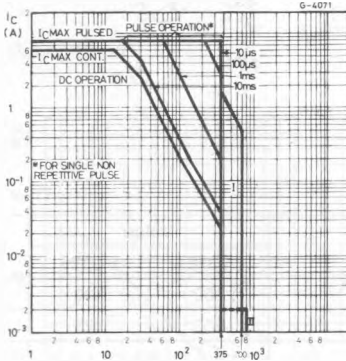
$R_{th(j-case)}$	Thermal Resistance Junction-case	Max	2.33	°C/W
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ELECTRICAL CHARACTERISTICS($T_{case} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CES}	Collector Cutoff Current ($V_{BE} = 0$)	$V_{CE} = 900\text{V}$ for BU326A			1	mA
		$V_{CE} = 900\text{V}$ for BU326			1	mA
		$V_{CE} = 900\text{V}$			2	mA
		$T_{case} = 125^{\circ}\text{C}$ for BU326			2	mA
I_{EBO}	Emitter Cutoff Current ($I_C = 0$)	$V_{CE} = 900\text{V}$			2	mA
		$T_{case} = 125^{\circ}\text{C}$ for BU326A			2	mA
I_{EBO}	Emitter Cutoff Current ($I_C = 0$)	$V_{EB} = 10\text{V}$			10	mA
$V_{CE0(sust)}^*$	Collector-emitter Sustaining Voltage ($I_B = 0$)	$I_C = 100\text{mA}$ for BU326 for BU326A	325 400			V V
$V_{CE(sat)}^*$	Collector-emitter Saturation Voltage	$I_C = 2.5\text{A}$	$I_B = 0.5\text{A}$		1.5	V
		$I_C = 4\text{A}$	$I_B = 1.25\text{A}$		3	V
$V_{BE(sat)}^*$	Base-emitter Saturation Voltage	$I_C = 2.5\text{A}$	$I_B = 0.5\text{A}$		1.4	V
		$I_C = 4\text{A}$	$I_B = 1.25\text{A}$		1.6	V
h_{FE}^*	DC Current Gain	$I_C = 1\text{A}$	$V_{CE} = 5\text{V}$	25		
t_{on}	Turn-on Time	$I_C = 2.5\text{A}$ $V_{CC} = 250\text{V}$	$I_{B1} = 0.5\text{A}$		0.5	μs
t_s	Storage Time	$I_C = 2.5\text{A}$ $I_{B2} = -1\text{A}$	$V_{CC} = 250\text{V}$		3.5	μs
t_f	Fall Time	$I_C = 2.5\text{A}$ $I_{B2} = -1\text{A}$	$V_{CC} = 250\text{V}$		0.5	μs

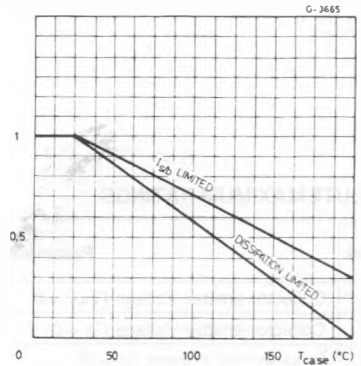
* Pulsed : pulse duration = 300 μs , duty cycle = 1.5%.

Safe Operating Areas.

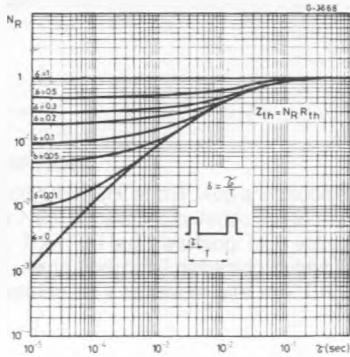


- I - Area of permissible operation during turn-on provided $R_{BE} \leq 100\Omega$ and $t_b \leq 0.6$
- II - Area of permissible operation with $V_{BE} \leq 0$ and $t_b \leq 2\mu\text{s}$

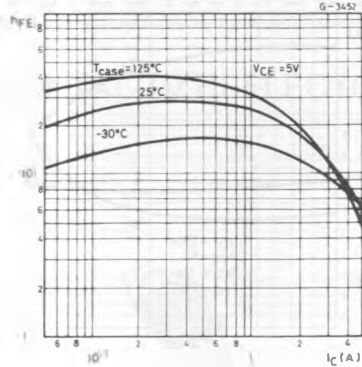
Derating Curves.



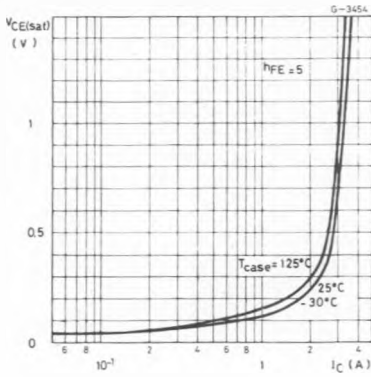
Thermal Transient Response.



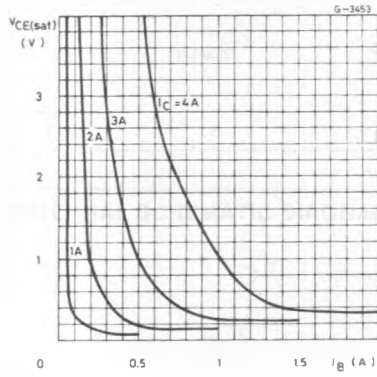
DC Current Gain.



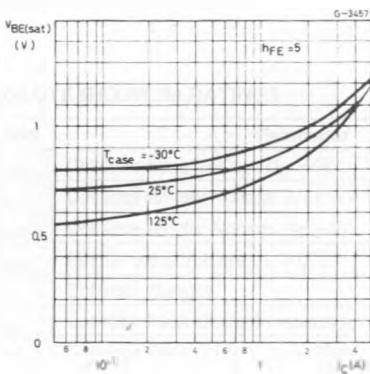
Collector-emitter Saturation Voltage.



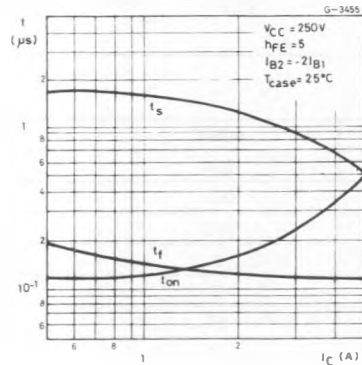
Collector-emitter Saturation Voltage.



Base-emitter Saturation Voltage.



Saturated Switching Characteristics.



Saturated Switching Characteristics.

