BU326
BU326A

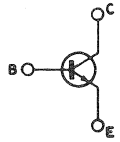
HIGH VOLTAGE POWER SWITCH

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

ABSOLUTE MAXIMUM RATINGS

		BU326A	BU326
V_{CES}	Collector-emitter voltage ($V_{BE} = 0$)	900V	800V
V_{CEO}	Collector-emitter voltage ($I_B = 0$)	400V	325V
V_{EBO}	Base-emitter voltage ($I_C = 0$)	10V	
I_C	Collector current	6A	
I_{CM}	Collector peak current	8A	
I_B	Base current	3A	
P_{tot}	Total power dissipation at $T_{case} \leqslant 25°C$	75W	
T_{stg}	Storage temperature	-65 to 150°C	
T_j	Junction temperature	150°C	

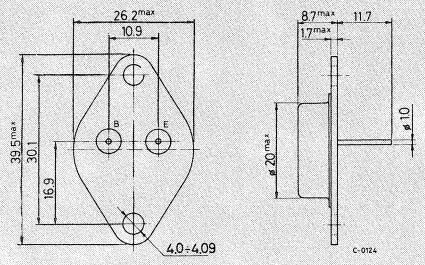
INTERNAL SCHEMATIC DIAGRAM



MECHANICAL DATA

Dimensions in mm

Collector connected to case



TO-3

THERMAL DATA

$R_{th\ j\text{-}case}$	Thermal resistance junction-case	max	1.67	°C/W

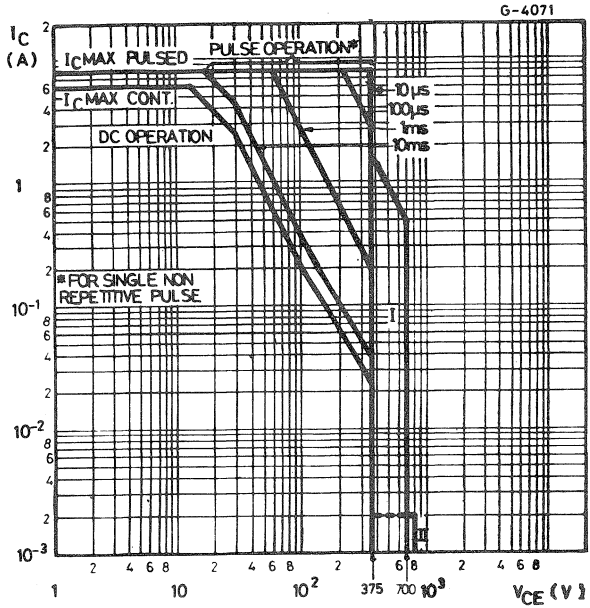
ELECTRICAL CHARACTERISTICS (T_{case} = 25°C unless otherwise specified)

Parameter		Test conditions	Min.	Typ.	Max.	Unit
I_{CES}	Collector cutoff current (V_{BE}=0)	V_{CE}= 900V for **BU326A**			1	mA
		V_{CE}= 800V for **BU326**			1	mA
		V_{CE}= 800V T_{case} = 125°C for **BU326**			2	mA
		V_{CE}= 900V T_{case}= 125°C for **BU326A**			2	mA
I_{EBO}	Emitter cutoff current (I_C=0)	V_{EB}=10V			10	mA
$V_{CEO\ (sus)}$*	Collector-emitter sustaining voltage (I_B = 0)	I_C =100mA for **BU326**	325			V
		for **BU326A**	400			V
$V_{CE\ (sat)}$*	Collector-emitter saturation voltage	I_C =2.5A I_B =0.5A			1.5	V
		I_C =4A I_B =1.25A			3	V
$V_{BE(sat)}$*	Base-emitter saturation voltage	I_C =2.5A I_B =0.5A			1.4	V
		I_C =4A I_B =1.25A			1.6	V
h_{FE}*	DC current gain	I_C =1A V_{CE}=5V	25			–
t_{on}	Turn-on time	I_C =2.5A I_{B1} =0.5A V_{CC}=250V			0.5	µs
t_s	Storage time	I_C =2.5A I_{B1} =0.5A I_{B2} =-1A V_{CC}=250V			3.5	µs
t_f	Fall time	I_C =2.5A I_{B1} =0.5A I_{B2} =-1A V_{CC}=250V			0.5	µs

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

BU326
BU326A

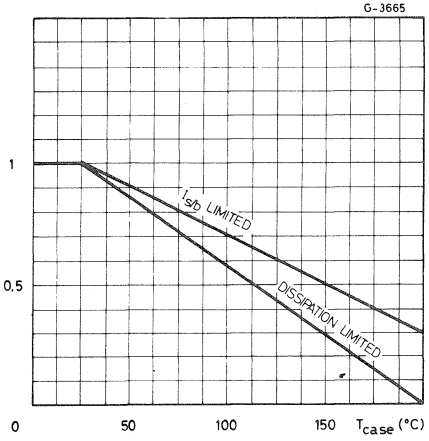
Safe operating areas



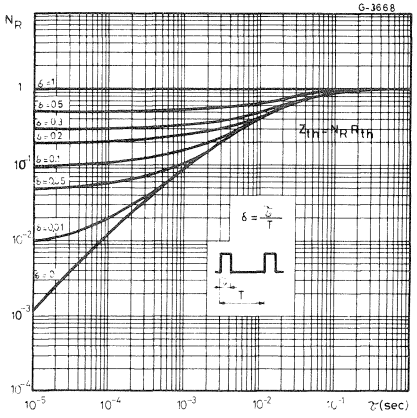
I — Area of permissible operation during turn-on provided $R_{BE} \leq 100\Omega$ and $t_p \leq 0.6$ µs

II — Area of permissible operation with $V_{BE} \leq 0$ and $t_p \leq 2$ µs

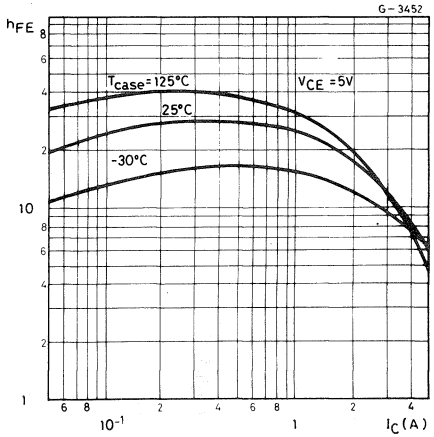
Derating curves



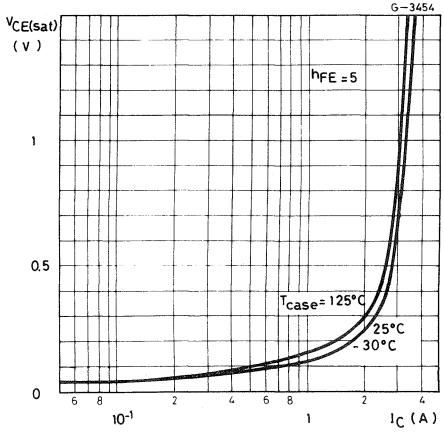
Thermal transient response



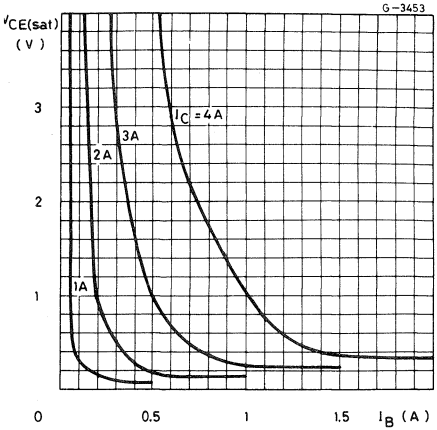
DC current gain



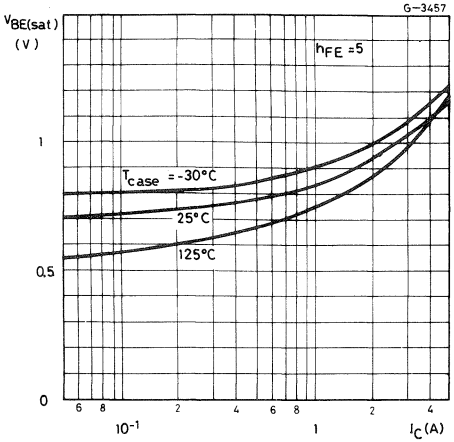
Collector-emitter saturation voltage



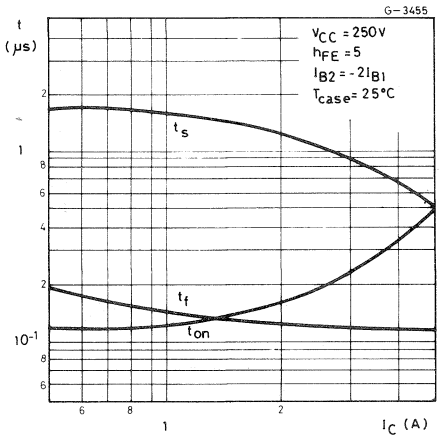
Collector-emitter saturation voltage



Base-emitter saturation voltage



Saturated switching characteristics



Saturated switching characteristics