

HIGH VOLTAGE POWER TRANSISTOR

The BU326 and BU326A Type are a fast switching high voltage transistor, more specially intended for operating in color TV receivers chopper supplies.

FEATURES:

- * Collector-Emitter Sustaining Voltage -
 $V_{CE(sus)} = 375 \text{ V (Min.) - BU326}$
 $= 400 \text{ V (Min.) - BU326A}$
- * Low Collector-Emitter Saturation Voltage -
 $V_{CE(sat)} = 1.5 \text{ V (Max.) @ } I_C = 2.5 \text{ A, } I_B = 0.5 \text{ A}$

Boca Semiconductor Corp.

BSC

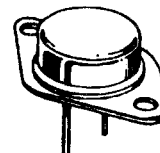
<http://www.bocasemi.com>

NPN
BU326
BU326A

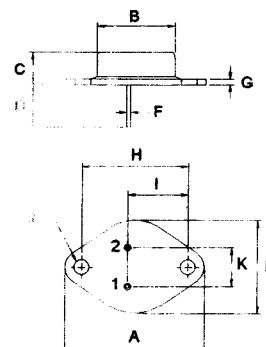
6 AMPERE
POWER
TRANSISTORS
375-400 VOLTS
75 WATTS

MAXIMUM RATINGS

Characteristic	Symbol	BU326	BU326A	Unit
Collector-Emitter Voltage	V_{CEO}	375	400	V
Collector-Base Voltage	V_{CBO}	800	900	V
Emitter-Base Voltage	V_{EBO}	10		V
Collector Current - Continuous - Peak	I_C	6.0 8.0		A
Base Current - Continuous	I_B	3.0		A
Total Power Dissipation @ $T_C = 25^\circ\text{C}$ Derate above 25°C	P_D	75 0.428		W W/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{STG}	- 65 to +200		$^\circ\text{C}$



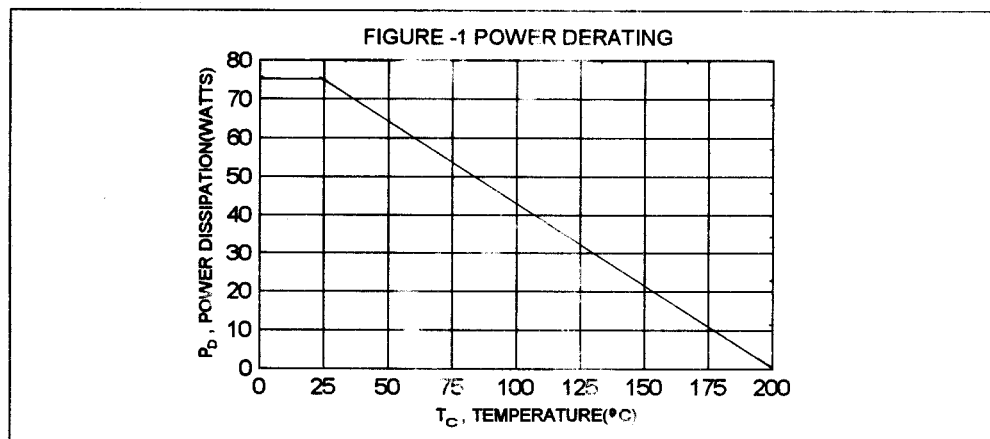
TO-3



PIN 1. BASE
 2. EMITTER
 COLLECTOR(CASE)

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance Junction to Case	$R_{\theta jc}$	2.33	$^\circ\text{C/W}$



DIM	MILLIMETERS	
	MIN	MAX
A	38.75	39.96
B	19.28	22.23
C	7.96	9.28
D	11.18	12.19
E	25.20	26.67
F	0.92	1.09
G	1.38	1.62
H	29.90	30.40
I	16.64	17.30
J	3.88	4.36
K	10.67	11.18

ELECTRICAL CHARACTERISTICS ($T_c = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
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OFF CHARACTERISTICS

Collector - Emitter Sustaining Voltage (1) ($I_C = 100 \text{ mA}$, $I_B = 0$)	BU326 BU326A	$V_{CE(sus)}$	375 400	V
Collector Cutoff Current ($V_{CE} = 800 \text{ V}$, $V_{BE} = 0$) ($V_{CE} = 900 \text{ V}$, $V_{BE} = 0$)	BU326 BU326A	I_{CES}	1.0 1.0	mA
Emitter Cutoff Current ($V_{EB} = 10 \text{ V}$, $I_C = 0$)		I_{EBO}	10	mA

ON CHARACTERISTICS (1)

DC Current Gain ($I_C = 1.0 \text{ A}$, $V_{CE} = 5.0 \text{ V}$)		hFE	25(typ)	
Collector - Emitter Saturation Voltage ($I_C = 2.5 \text{ A}$, $I_B = 0.5 \text{ A}$) ($I_C = 4.0 \text{ A}$, $I_B = 1.25 \text{ A}$)		$V_{CE(sat)}$	1.5 3.0	V
Base - Emitter Saturation Voltage ($I_C = 2.5 \text{ A}$, $I_B = 0.5 \text{ A}$) ($I_C = 4.0 \text{ A}$, $I_B = 1.25 \text{ A}$)		$V_{BE(sat)}$	1.4 1.6	V

DYNAMIC CHARACTERISTICS

Current Gain - Bandwidth Product ($I_C = 0.2 \text{ A}$, $V_{CE} = 10 \text{ V}$, $f = 1.0 \text{ MHz}$)		f_T	4.0	MHz
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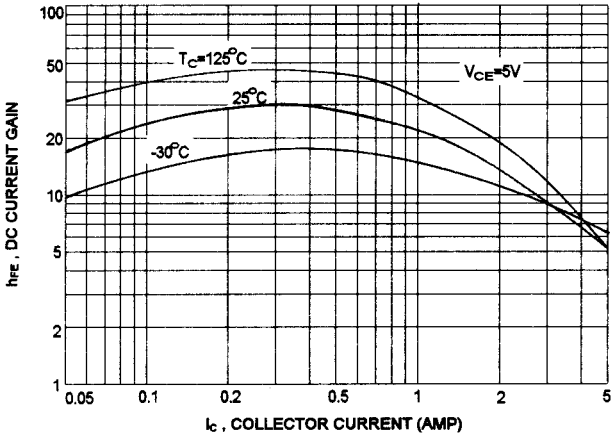
SWITCHING CHARACTERISTICS

Turn On Time	$V_{CC} = 250 \text{ V}$, $I_C = 2.5 \text{ A}$ $I_{B1} = 0.5 \text{ A}$, $I_{B2} = -1 \text{ A}$	t_{on}	0.5	us
Storage Time		t_s	3.5	us
Fall Time		t_f	0.5	us

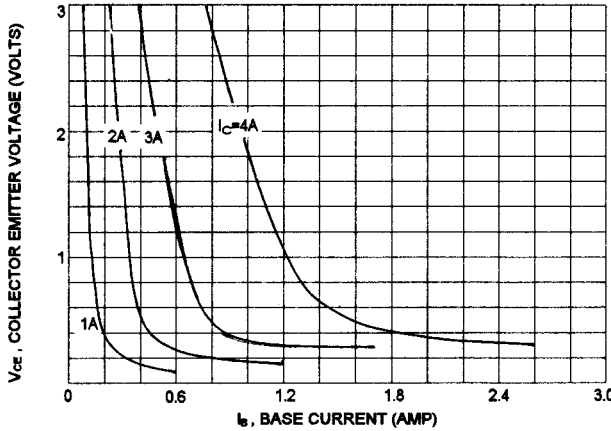
(1) Pulse Test: Pulse width $\leq 300 \text{ us}$, Duty Cycle $\leq 2.0\%$

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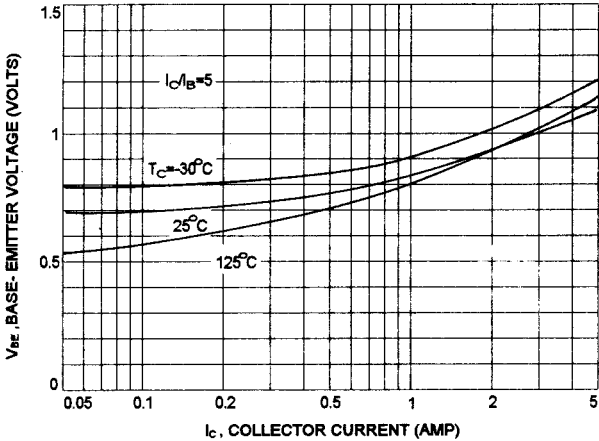
DC CURRENT GAIN



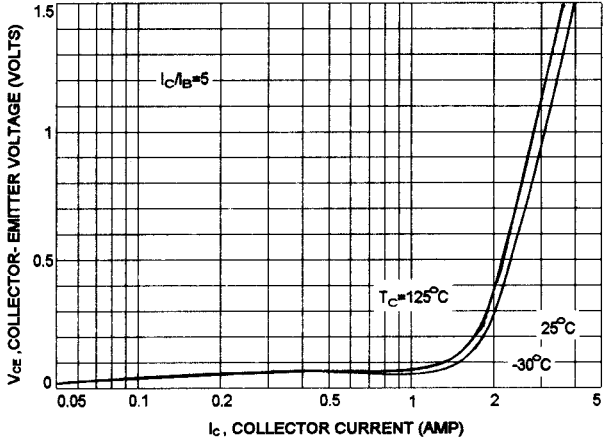
COLLECTOR SATURATION REGION



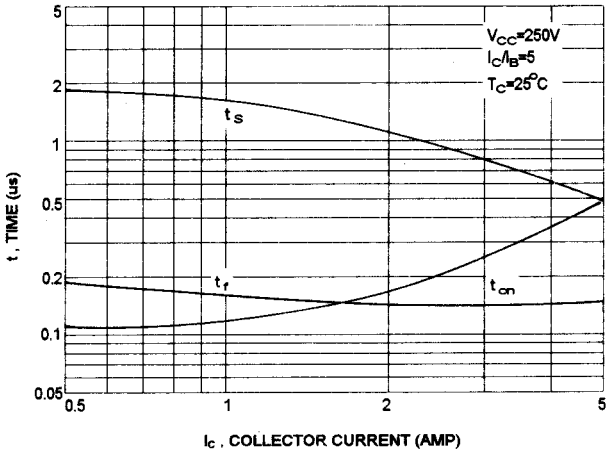
BASE-EMITTER VOLTAGE



COLLECTOR-EMITTER VOLTAGE



SWITCHING TIME



SAFE OPERATING AREA

