HIGH VOLTAGE POWER TRANSISTOR

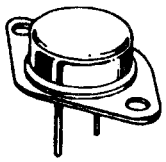
NPN
BU326
BU326A

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

Boca Semiconductor Corp.
BSC
http://www.bocasemi.com

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

6 AMPERE
POWER
TRANSISTORS
375-400 VOLTS
75 WATTS



TO-3

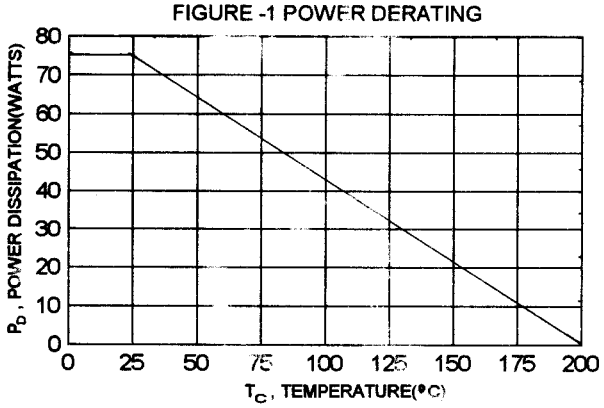
MAXIMUM RATINGS

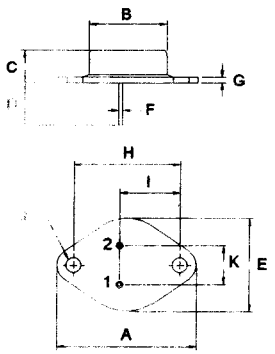
Characteristic	Symbol	BU326	BU326A	Unit
Collector-Emitter Voltage	V_{CEO}	375	400	V
Collector-Base Voltage	V_{CBO}	800	900	V
Emitter-Base Voltage	V_{EBO}	10		V
Collector Current - Continuous - Peak	I_C	6.0 8.0		A
Base Current - Continuous	I_B	3.0		A
Total Power Dissipation @T_C=25°C Derate above 25°C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

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance Junction to Case	Rθjc	2.33	°C/W

FIGURE -1 POWER DERATING





PIN 1.BASE
2.EMITTER
COLLECTOR(CASE)

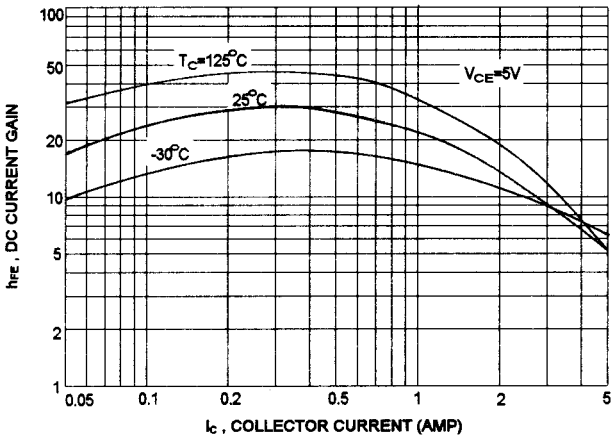
DIM	MILLIMETERS	
	MIN	MAX
A	38.75	39.96
B	19.28	22.23
C	7.96	9.28
D	11.18	12.19
E	25.20	26.67
F	0.92	1.09
G	1.38	1.62
H	29.90	30.40
I	16.64	17.30
J	3.88	4.36
K	10.67	11.18

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

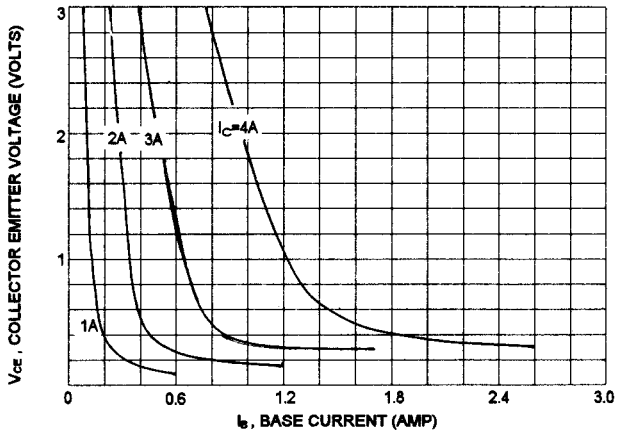
Characteristic		Symbol	Min	Max	Unit
OFF CHARACTERISTICS					
Collector - Emitter Sustaining Voltage (1) (I_C = 100 mA, I_B = 0)	BU326 BU326A	$V_{CEO(SUS)}$	 375 400		V
Collector Cutoff Current (V_{CE} = 800 V, V_{BE}= 0) (V_{CE} = 900 V, V_{BE} = 0)	 BU326 BU326A	I_{CES}		 1.0 1.0	mA
Emitter Cutoff Current (V_{EB}= 10 V , I_C = 0)		I_{EBO}		 10	mA
ON CHARACTERISTICS (1)					
DC Current Gain (I_C =1.0 A , V_{CE} = 5.0 V)		hFE	 25(typ)		
Collector - Emitter Saturation Voltage (I_C =2.5 A, I_B = 0.5 A) (I_C =4.0 A, I_B = 1.25 A)		$V_{CE(sat)}$		 1.5 3.0	V
Base - Emitter Saturation Voltage (I_C =2.5 A, I_B = 0.5 A) (I_C =4.0 A, I_B = 1.25 A)		$V_{BE(sat)}$		 1.4 1.6	V
DYNAMIC CHARACTERISTICS					
Current Gain - Bandwidth Product (I_C = 0.2 A , V_{CE} = 10 V , f = 1.0 MHz)		f_T	4.0		MHz
SWITCHING CHARACTERISTICS					
Turn On Time	V_{CC}= 250 V, I_C= 2.5 A I_{B1}= 0.5 A, I_{B2}= -1 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 ≦ 300 us , Duty Cycle ≦ 2.0%

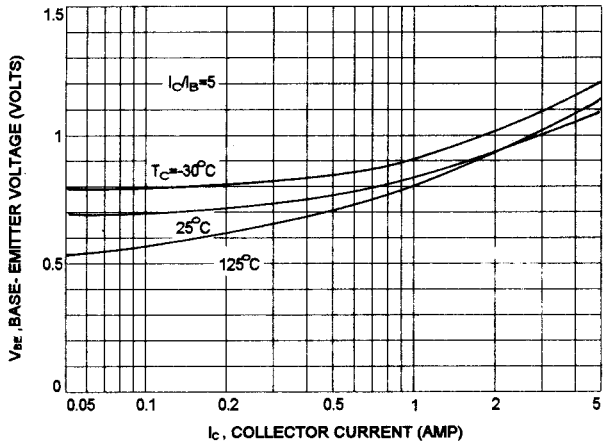
DC CURRENT GAIN



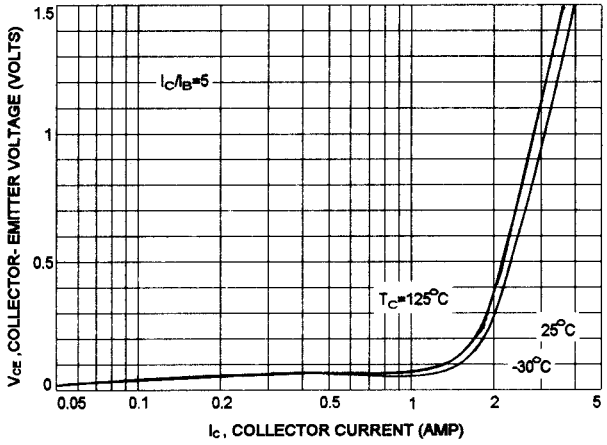
COLLECTOR SATURATION REGION



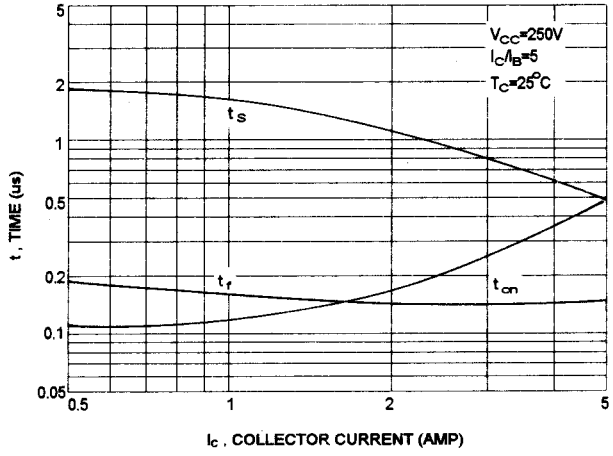
BASE-EMITTER VOLTAGE



COLLECTOR-EMITTER VOLTAGE



SWITCHING TIME



SAFE OPERATING AREA