

HIGH VOLTAGE POWER TRANSISTOR

... designed for use in high-voltage, high-speed, power switching in inductive circuit.

FEATURES:

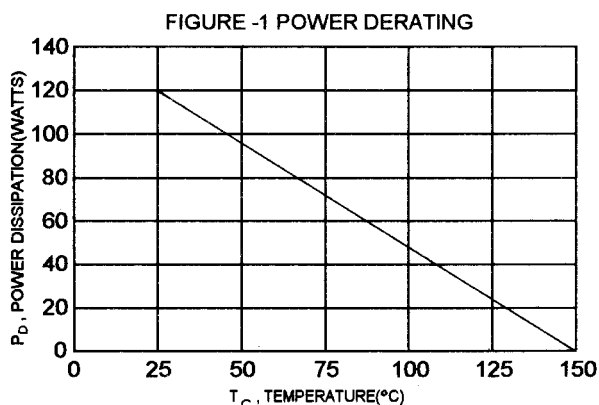
- * Collector-Emitter Sustaining Voltage -
 $V_{CE(SUS)} = 400 \text{ V (Min.)}$ - BU926
- * Low Collector-Emitter Saturation Voltage -
 $V_{CE(sat)} = 1.5 \text{ V (Max.) @ } I_C = 5.0 \text{ A, } I_B = 1.0 \text{ A}$

MAXIMUM RATINGS

Characteristic	Symbol	BU926	Unit
Collector-Emitter Voltage	V_{CEO}	400	V
Collector-Base Voltage	V_{CBO}	850	V
Emitter-Base Voltage	V_{EBO}	7.0	V
Collector Current - Continuous - Peak	I_C	8.0 10	A
Base Current - Continuous	I_B	2.0	A
Total Power Dissipation @ $T_C = 25^\circ\text{C}$ Derate above 25°C	P_D	120 0.96	W W/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_J, T_{STG}	- 65 to +150	$^\circ\text{C}$

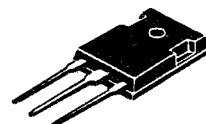
THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance Junction to Case	$R_{\theta JC}$	1.04	$^\circ\text{C/W}$

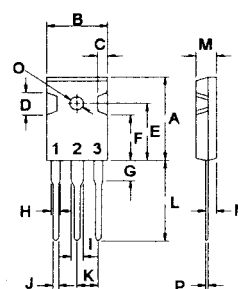


NPN
BU926

8.0 AMPERE
POWER
TRANSISTORS
400 VOLTS
120 WATTS



TO-247(3P)



PIN 1.BASE
2.COLLECTOR
3.EMITTER

DIM	MILLIMETERS	
	MIN	MAX
A	20.63	22.38
B	15.38	16.20
C	1.90	2.70
D	5.10	6.10
E	14.81	15.22
F	11.72	12.84
G	4.20	4.50
H	1.82	2.46
I	2.92	3.23
J	0.89	1.53
K	5.26	5.66
L	18.50	21.50
M	4.68	5.36
N	2.40	2.80
O	3.25	3.65
P	0.55	0.70

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) ($I_C = 100\text{ mA}$, $I_B = 0$)	$V_{CE(sus)}$	400		V
Collector Cutoff Current ($V_{CE} = 850\text{ V}$, $V_{BE} = -2.5\text{ V}$)	I_{CEX}		0.5	mA
Emitter Cutoff Current ($V_{EB} = 7.0\text{ V}$, $I_C = 0$)	I_{EBO}		1.0	mA

ON CHARACTERISTICS (1)

Collector - Emitter Saturation Voltage ($I_C = 5.0\text{ A}$, $I_B = 1.0\text{ A}$) ($I_C = 8.0\text{ A}$, $I_B = 2.0\text{ A}$)	$V_{CE(sat)}$		1.5 5.0	V
Base - Emitter Saturation Voltage ($I_C = 5.0\text{ A}$, $I_B = 1.0\text{ A}$)	$V_{BE(sat)}$		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(typ)		MHz
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SWITCHING CHARACTERISTICS

Turn On Time	$V_{CC} = 250\text{ V}$, $I_C = 5.0\text{ A}$ $I_{B1} = 1.0\text{ A}$, $I_{B2} = -1.0\text{ A}$	t_{on}	1.0	us
Storage Time		t_s	3.2	us
Fall Time		t_f	0.8	us

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

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