

## HIGH VOLTAGE POWER TRANSISTOR

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

### FEATURES:

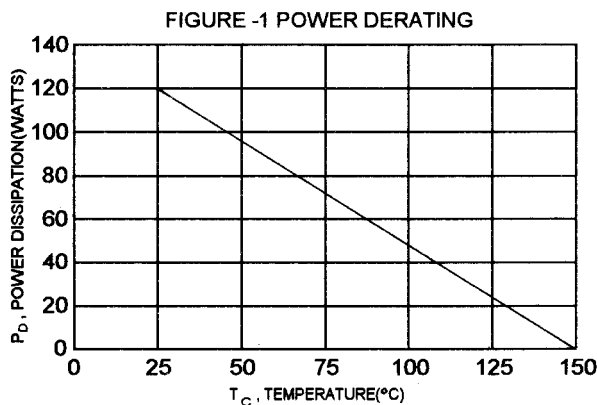
- \* Collector-Emitter Sustaining Voltage -  $V_{CE(SUS)} = 400\text{ V (Min.) - BU926}$
- \* Low Collector-Emitter Saturation Voltage -  $V_{CE(sat)} = 1.5\text{ V (Max.) @ } I_C = 5.0\text{ A, } I_B = 1.0\text{ A}$

### 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 $25^\circ\text{C}$	$P_D$	120 0.96	W W/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	$T_J, T_{STG}$	- 65 to +150	$^\circ\text{C}$

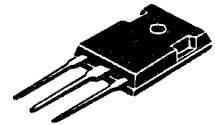
### THERMAL CHARACTERISTICS

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

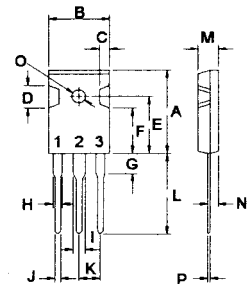


**NPN  
BU926**

**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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