

Silicon NPN Power Transistor

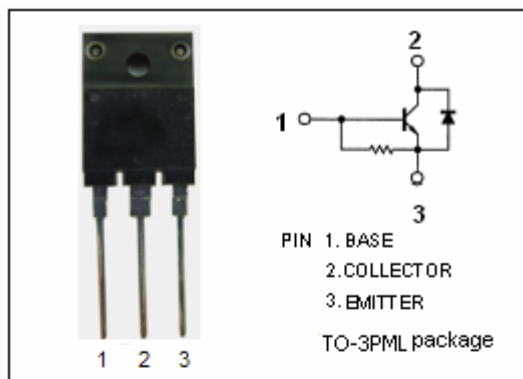
BUH315D

DESCRIPTION

- High Switching Speed
- High Voltage
- Built-in Integrated Diode

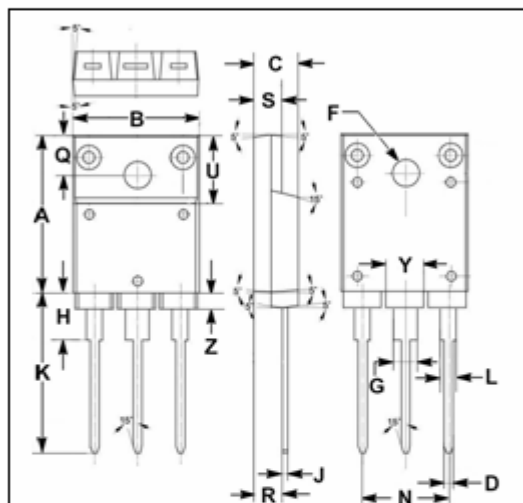
APPLICATIONS

- Designed for use in horizontal deflection circuits in TV's and monitors.



ABSOLUTE MAXIMUM RATINGS(T_a=25)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	1200	V
V _{CEO}	Collector-Emitter Voltage	700	V
V _{EBO}	Emitter-Base Voltage	10	V
I _C	Collector Current-Continuous	6	A
I _{CM}	Collector Current-Peak	12	A
I _B	Base Current	3	A
I _{BM}	Base Current-Peak	5	A
P _C	Collector Power Dissipation @T _C =25	44	W
T _J	Junction Temperature	150	
T _{stg}	Storage Temperature	-65~150	



DIM	mm	
	MIN	MAX
A	19.90	20.10
B	15.90	16.10
C	5.50	5.70
D	0.90	1.10
F	3.30	3.50
G	2.90	3.10
H	5.90	6.10
J	0.595	0.605
K	22.30	22.50
L	1.90	2.10
N	10.80	11.00
Q	4.90	5.10
R	3.75	3.95
S	3.20	3.40
U	9.90	10.10
Y	4.70	4.90
Z	1.90	2.10

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	2.8	/W

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ELECTRICAL CHARACTERISTICS

 $T_C=25$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C= 100mA ; I_B= 0, L= 25mH$	700			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 3A; I_B= 1A$			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 3A; I_B= 1A$			1.5	V
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 5V; I_C=0$			300	mA
I_{CES}	Collector Cutoff Current	$V_{CE}= 1200V; V_{BE}= 0$			0.2	mA
h_{FE}	DC Current Gain	$I_C= 3A ; V_{CE}= 5V$ $I_C= 3A ; V_{CE}= 5V; T_C=100$	4 2.5		9	
V_{ECF}	C-E Diode Forward Voltage	$I_F= 3A$			2.5	V

Switching Times; Resistive Load

t_s	Storage Time	$I_C= 3A; I_{B1}= 1A; I_{B2}= -1.5A$ $V_{CC}= 400V$		1.8	2.7	μs
t_f	Fall Time			0.2	0.3	μs