

SPTECH Silicon NPN Power Transistor

BUH515D

DESCRIPTION

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

APPLICATIONS

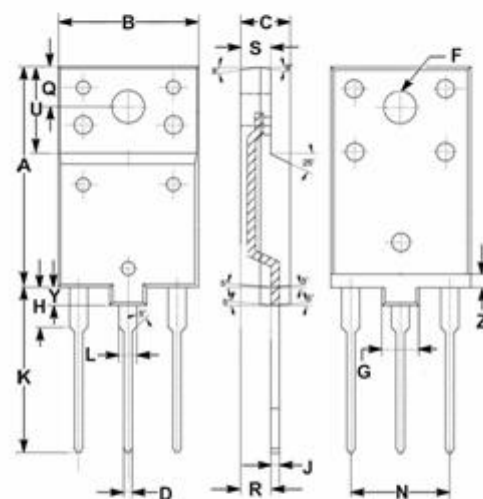
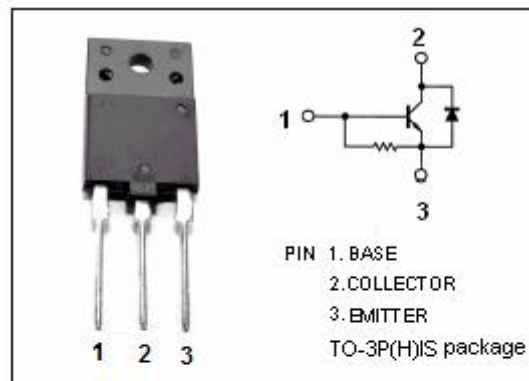
- Designed for use in horizontal deflection circuits in TV's and monitors.

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	8	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current	5	A
I_{BM}	Base Current-Peak	8	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$	50	W
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-65~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.5	$^{\circ}\text{C/W}$



DIM	mm	
	MIN	MAX
A	24.10	24.70
B	15.20	15.80
C	5.20	5.80
D	0.65	1.05
F	3.30	3.90
G	3.90	4.10
H	4.30	4.70
J	0.80	1.00
K	18.30	18.70
L	1.90	2.40
N	10.70	11.10
Q	4.40	4.60
R	3.30	3.70
S	3.20	3.40
U	9.50	9.70
Y	1.90	2.10
Z	1.40	1.60

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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=5\text{A}; I_B=1.25\text{A}$			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=5\text{A}; I_B=1.25\text{A}$			1.3	V
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			200	mA
I_{CES}	Collector Cutoff Current	$V_{CE}=1300\text{V}; V_{BE}=0$ $V_{CE}=1500\text{V}; V_{BE}=0$ $V_{CE}=1500\text{V}; V_{BE}=0; T_C=125^{\circ}\text{C}$			10 0.2 2.0	μA mA mA
h_{FE}	DC Current Gain	$I_C=5\text{A}; V_{CE}=5\text{V}$ $I_C=5\text{A}; V_{CE}=5\text{V}; T_C=100^{\circ}\text{C}$	5 3		10	

Switching Times; Resistive Load

t_s	Storage Time	$I_C=5\text{A}; I_{B1}=1.5\text{A}; I_{B2}=-2.5\text{A};$ $V_{CC}=400\text{V}$			3.6	μs
t_f	Fall Time				0.26	μs