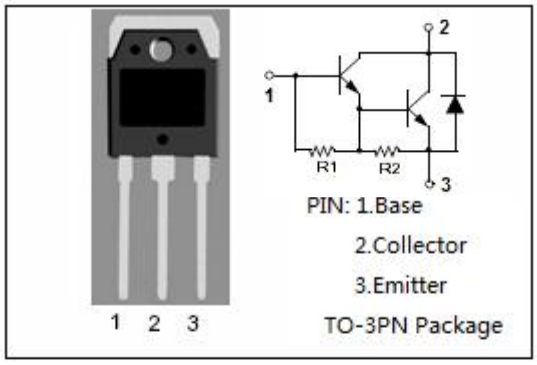
SPTECH Silicon NPN Power Transistor

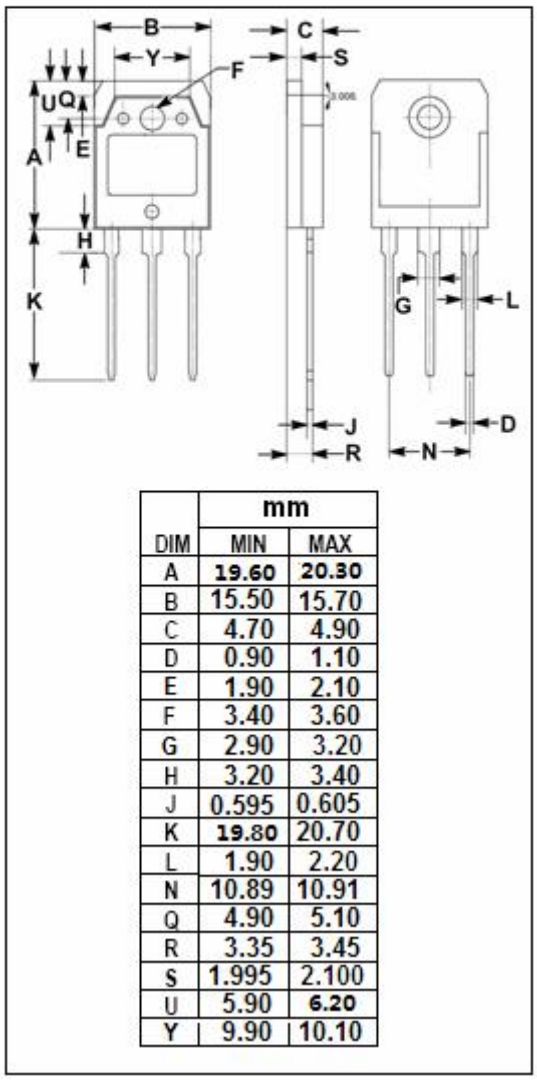


DESCRIPTION

- High Voltage
- DARLINGTON

APPLICATIONS

- High ruggedness electronic ignitions
- High voltage ignition coil driver



DIM	mm MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

ABSOLUTE MAXIMUM RATINGS (T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current- Continuous	15	A
I_{CM}	Collector Current-Peak	30	A
I_B	Base Current	1	A
I_{BM}	Base Current-Peak	5	A
P_C	Collector Power Dissipation @T_C=25℃	155	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	0.97	℃/W

SPTECH Silicon NPN Power Transistor

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C=50mA; I_B= 0	400			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 8 A; I_B= 100mA			1.6	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 10 A; I_B= 250mA			1.8	V
$V_{CE(sat)-3}$	Collector-Emitter Saturation Voltage	I_C= 12 A; I_B= 300mA			2.0	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	I_C= 8 A; I_B= 100mA			2.2	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	I_C= 10 A; I_B= 250mA			2.5	V
$V_{BE(sat)-3}$	Base-Emitter Saturation Voltage	I_C= 12 A; I_B= 300mA			2.7	V
I_{CES}	Collector Cutoff Current	V_{CE}= 500V;V_{BE}= 0 V_{CE}= 500V;V_{BE}= 0;T_j= 125℃			0.1 0.5	mA
I_{CEO}	Collector Cutoff Current	V_{CE}= 450V; I_B= 0 V_{CE}= 450V; I_B= 0;T_j= 125℃			0.1 0.5	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			20	mA
h_{FE}	DC Current Gain	I_C= 5A ; V_{CE}= 10V	300			
V_{ECF}	C-E Diode Forward Voltage	I_F= 10A			2.5	V