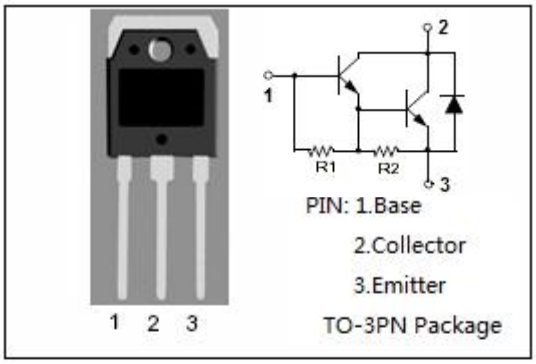
isc Silicon NPN Darlington Power Transistor BU941ZP

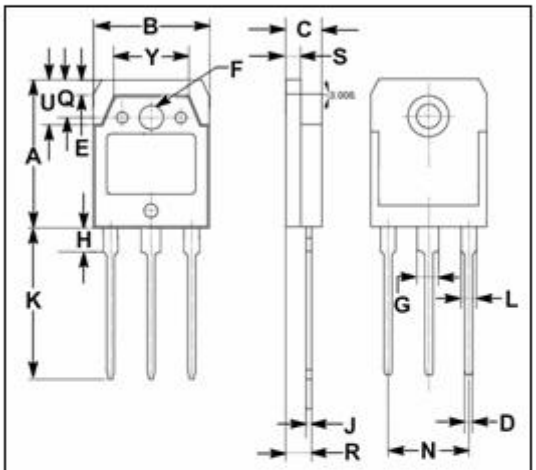


DESCRIPTION

- Built In Clamping Zener
- High Operating Junction Temperature
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in automotive environment as electronic ignition power actuators.



DIM	mm MIN	mm 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_{CEO}	Collector-Emitter Voltage	350	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

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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= 30mA	350			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 8A; I_B= 0.1A			1.8	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 10A; I_B= 0.25A			1.8	V
$V_{CE(sat)-3}$	Collector-Emitter Saturation Voltage	I_C= 12A; I_B= 0.3A			2.0	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	I_C= 8A; I_B= 0.1A			2.2	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	I_C= 10A; I_B= 0.25A			2.5	V
$V_{BE(sat)-3}$	Base-Emitter Saturation Voltage	I_C= 12A; I_B= 0.3A			2.7	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 300V; I_B= 0 V_{CE}= 300V; I_B= 0;T_C=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