

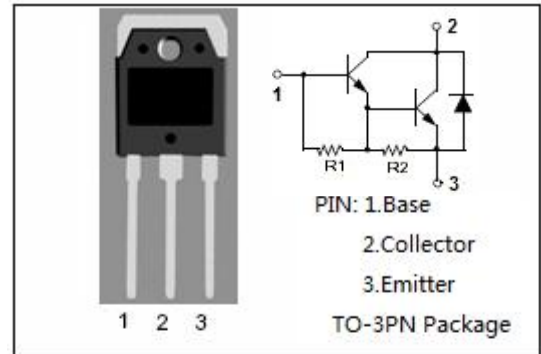
isc Silicon NPN Darlington Power Transistor

BU941ZP
DESCRIPTION

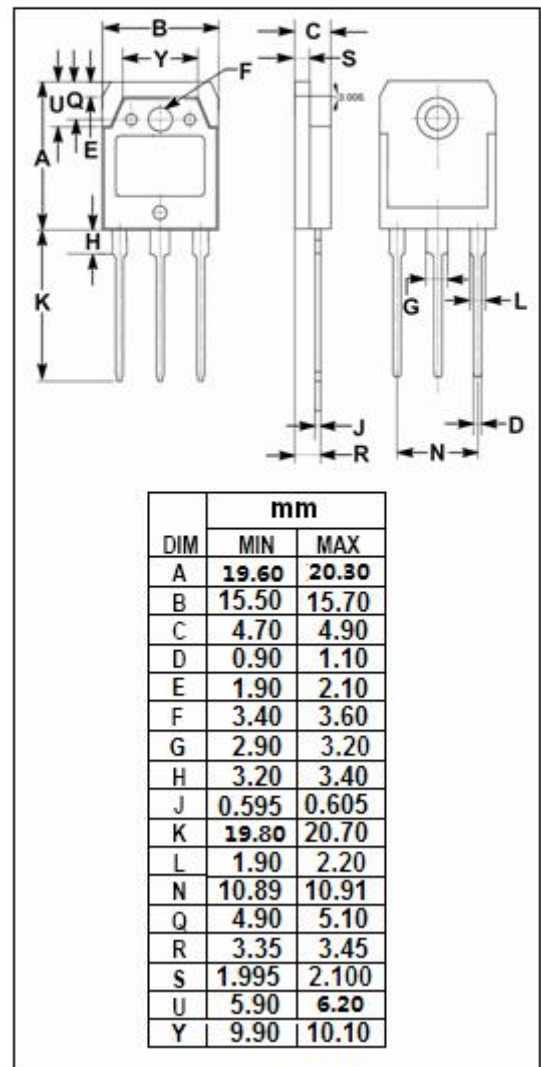
- Built In Clamping Zener
- High Operating Junction Temperature
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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


ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

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°C	155	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-65~150	°C


THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	0.97	°C/W

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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$\star V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = 30\text{mA}$	350			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C = 8\text{A}; I_B = 0.1\text{A}$			1.8	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C = 10\text{A}; I_B = 0.25\text{A}$			1.8	V
$V_{CE(sat)-3}$	Collector-Emitter Saturation Voltage	$I_C = 12\text{A}; I_B = 0.3\text{A}$			2.0	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	$I_C = 8\text{A}; I_B = 0.1\text{A}$			2.2	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	$I_C = 10\text{A}; I_B = 0.25\text{A}$			2.5	V
$V_{BE(sat)-3}$	Base-Emitter Saturation Voltage	$I_C = 12\text{A}; I_B = 0.3\text{A}$			2.7	V
I_{CEO}	Collector Cutoff Current	$V_{CE} = 300\text{V}; I_B = 0$ $V_{CE} = 300\text{V}; I_B = 0; T_C = 125^\circ\text{C}$			0.1 0.5	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 5\text{V}; I_C = 0$			20	mA
h_{FE}	DC Current Gain	$I_C = 5\text{A}; V_{CE} = 10\text{V}$	300			
V_{ECF}	C-E Diode Forward Voltage	$I_F = 10\text{A}$			2.5	V

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