

isc Silicon NPN Darlington Power Transistor

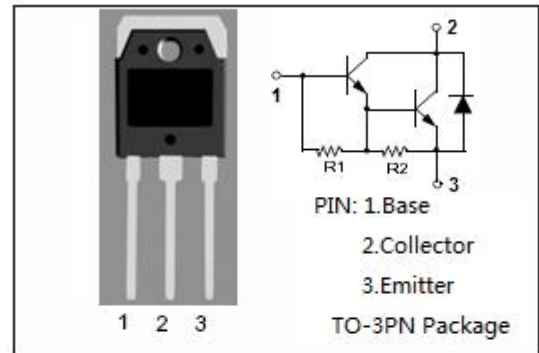
BU941ZL

DESCRIPTION

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

APPLICATIONS

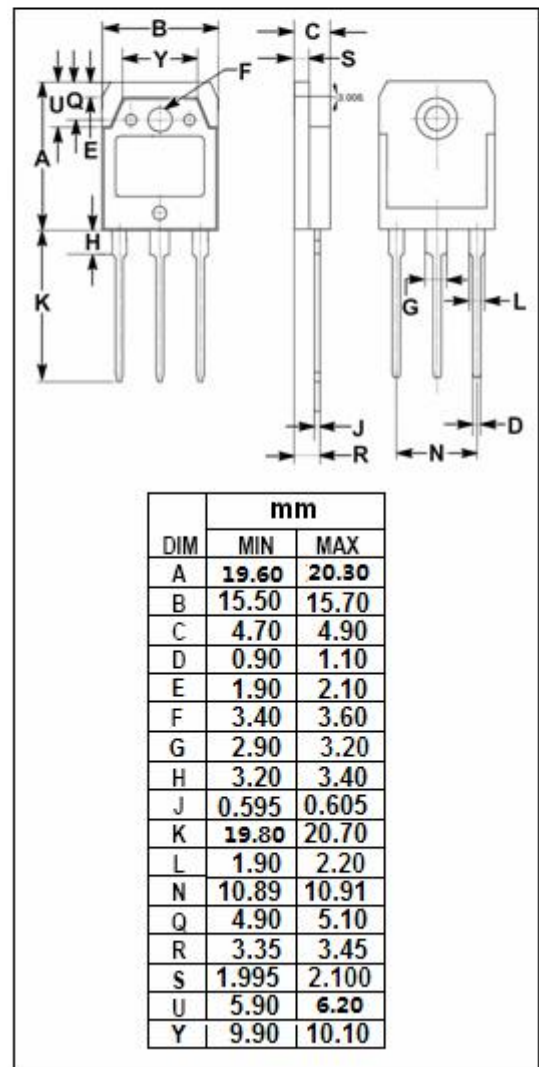
- High ruggedness electric ignitions

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

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 @ $T_C=25^\circ\text{C}$	155	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

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



isc Silicon NPN Darlington Power Transistor**BU941ZL****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 10mA	350			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 8A; I _B = 0.1A			1.6	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°C			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			

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