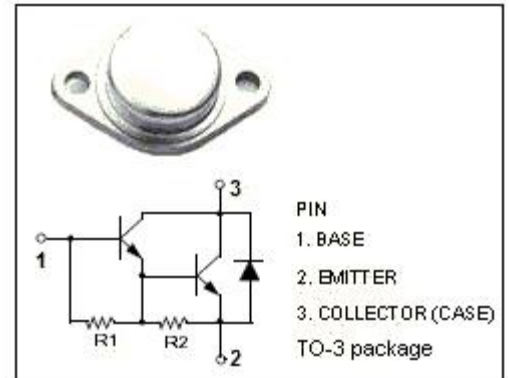


isc Silicon NPN Darlington Power Transistor
BUX29
DESCRIPTION

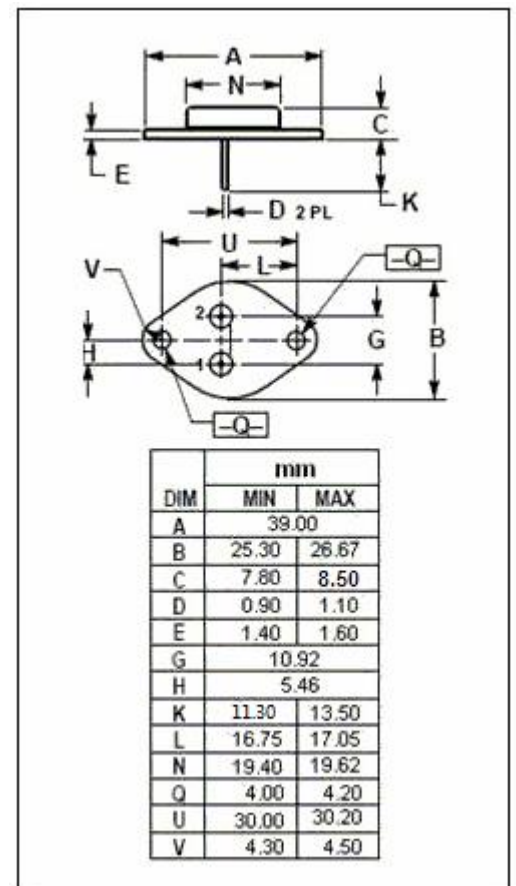
- Collector-Emitter Sustaining Voltage-
 $V_{CEO(SUS)} = 400V(\text{Min})$
- High Reliability
- DARLINGTON
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in firing circuits of cars and general purpose switching applications at high voltages.


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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CER}	Collector-Emitter Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	8	A
I_{CM}	Collector Current-peak	12	A
I_B	Base Current	1	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	80	W
T_j	Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~175	$^\circ\text{C}$


THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.5	$^\circ\text{C/W}$

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ELECTRICAL CHARACTERISTICS

 T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA ; I _B = 0	400			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 7A; I _B = 0.3A			2.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 7A; I _B = 0.3A			2.5	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 400V; I _B = 0 V _{CE} = 400V; I _B = 0; T _C =125°C			1.0 10	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C = 0			20	mA
h _{FE-1}	DC Current Gain	I _C = 5A ; V _{CE} = 1.5V	50			
h _{FE-2}	DC Current Gain	I _C = 7A ; V _{CE} = 1.5V	30			
V _{ECF}	C-E Diode Forward Voltage	I _F = 7A			1.5	V

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