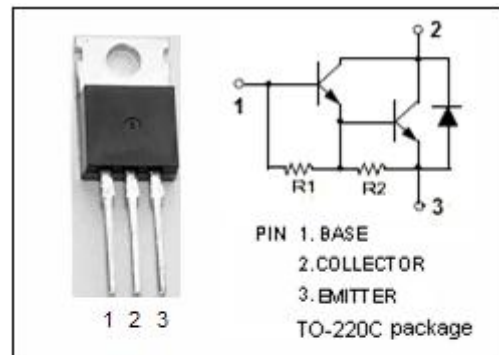


isc Silicon NPN Darlington Power Transistor
BU921T
DESCRIPTION

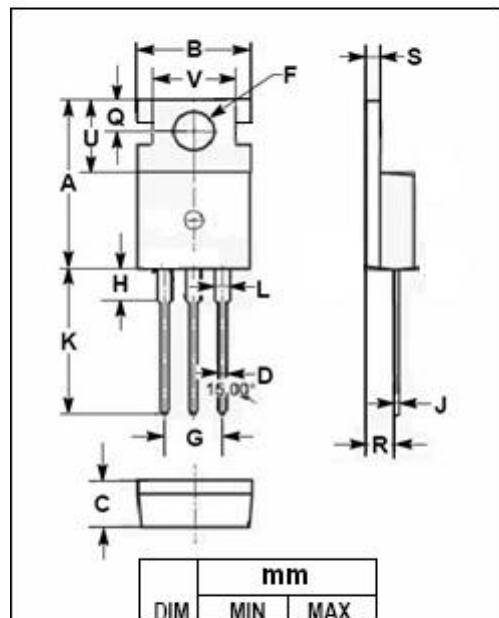
- High Voltage
- Darlington
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for automotive ignition applications and inverter circuits for motor control.


ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CES}	Collector-Emitter Voltage V _{BE} = 0	450	V
V _{CEO}	Collector-Emitter Voltage	400	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current	10	A
I _{CM}	Collector Current-peak	15	A
I _B	Base Current	5	A
P _C	Collector Power Dissipation @T _C =25°C	105	W
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-65~150	°C



DIM	mm	
	MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	1.2	°C/W

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BU921T

ELECTRICAL CHARACTERISTICS

T_c=25°C 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 = 5A; I _B = 50mA			1.8	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 7A; I _B = 140mA			1.8	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C = 5A; I _B = 50mA			2.2	V
V _{BE(sat)-2}	Base-Emitter Saturation Voltage	I _C = 7A; I _B = 140mA			2.5	V
I _{CES}	Collector Cutoff Current	V _{CE} = 450V; V _{BE} = 0 V _{CE} = 450V; V _{BE} = 0; T _j = 125°C			0.25 0.5	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 400V; I _B = 0			0.25	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			50	mA
V _{ECF}	C-E Diode Forward Voltage	I _F = 7A			2.5	V

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