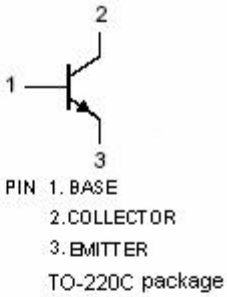
isc Silicon NPN Power Transistor — BUJ303A

DESCRIPTION

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



APPLICATIONS

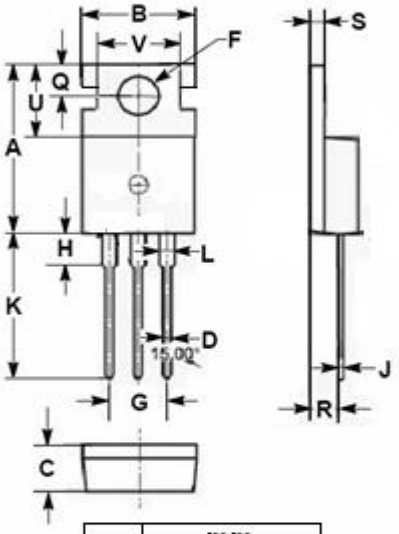
- Designed for use in high frequency electronic lighting ballast applications, converters, inverters, switching regulators, motor control systems, etc.

ABSOLUTE MAXIMUM RATINGS (T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1000	V
V_{CEO}	Collector-Emitter Voltage	500	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	10	A
I_B	Base Current	2	A
I_{BM}	Base Current-Peak	4	A
P_C	Collector Power Dissipation @T_C=25℃	120	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	1.04	K/W



DIM	mm MIN	mm 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

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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=50mA; I_B= 0	500			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 3A; I_B= 0.6A			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 3A; I_B= 0.6A			1.3	V
I_{CBO}	Collector Cutoff Current	V_{CB}=1000V ;V_{BE}= 0 V_{CB}=1000V ;V_{BE}= 0;T_C=125℃			1 2	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 9V; I_C= 0			0.1	mA
I_{CEO}	Base Cutoff Current	V_{CE}= 500V; I_C= 0			0.1	mA
h_{FE-1}	DC Current Gain	I_C= 5mA ; V_{CE}= 5V	10		35	
h_{FE-2}	DC Current Gain	I_C= 0.5A ; V_{CE}= 5V	14		35	