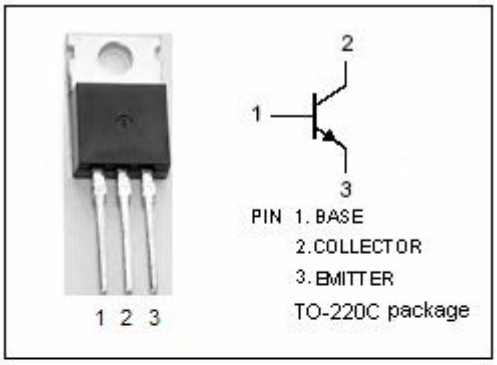
isc Silicon NPN Power Transistor — BU1706A

DESCRIPTION

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



APPLICATIONS

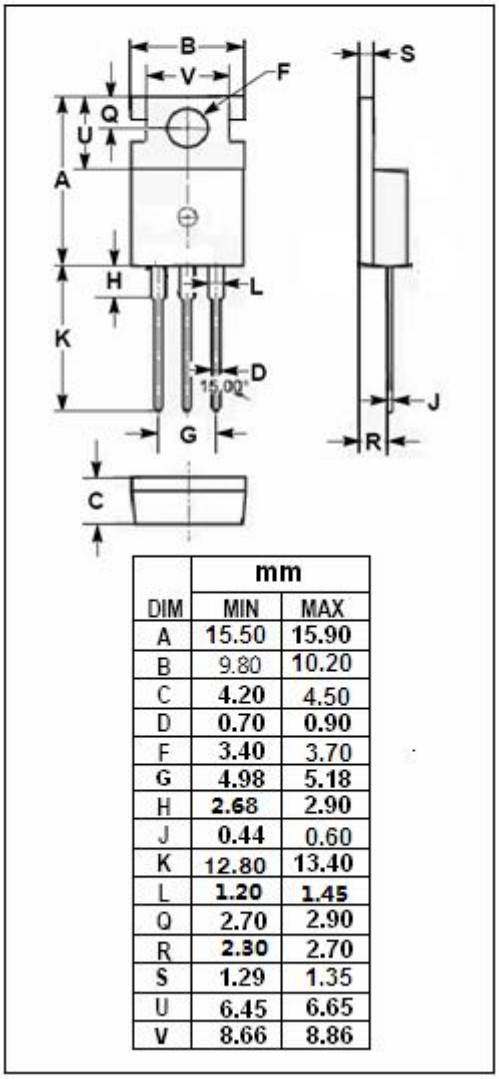
- Designed for use in high frequency electronic lighting ballast applications.

ABSOLUTE MAXIMUM RATINGS (T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CESM}	Collector-Emitter Voltage V_{BE}= 0	1500	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	12	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	8	A
I_B	Base Current-Continuous	3	A
I_{BM}	Base Current-peak	5	A
P_C	Collector Power Dissipation @T_C=25℃	100	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	1.25	℃/W



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

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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	750			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 1.5A; I_B= 0.3A			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 1.5A; I_B= 0.3A			1.3	V
I_{CES}	Collector Cutoff Current	V_{CE}= V_{CESM}; V_{BE}= 0 V_{CE}= V_{CESM}; V_{BE}= 0; T_C=125℃			1.0 2.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 12V; I_C= 0			1.0	mA
h_{FE-1}	DC Current Gain	I_C= 5mA; V_{CE}= 10V	8			
h_{FE-2}	DC Current Gain	I_C= 400mA; V_{CE}= 3V	12		35	
h_{FE-3}	DC Current Gain	I_C= 1.5A; V_{CE}= 1V	5			