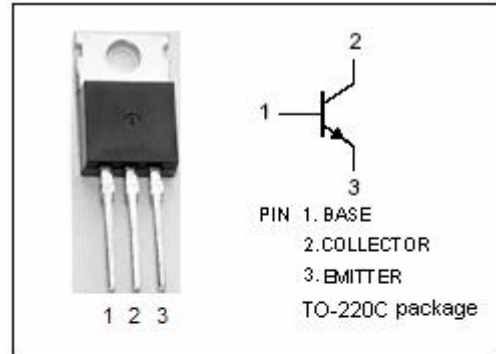


**isc Silicon NPN Power Transistor**
**BU1706A**
**DESCRIPTION**

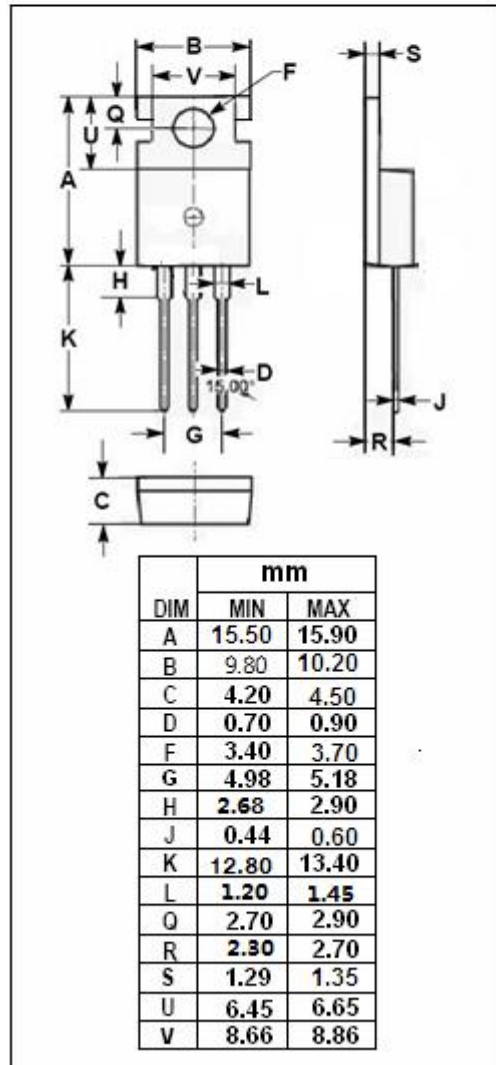
- High Voltage
- High Speed Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

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


**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CESM</sub>	Collector-Emitter Voltage V <sub>BE</sub> = 0	1500	V
V <sub>CEO</sub>	Collector-Emitter Voltage	800	V
V <sub>EBO</sub>	Emitter-Base Voltage	12	V
I <sub>C</sub>	Collector Current-Continuous	5	A
I <sub>CM</sub>	Collector Current-Peak	8	A
I <sub>B</sub>	Base Current-Continuous	3	A
I <sub>BM</sub>	Base Current-peak	5	A
P <sub>C</sub>	Collector Power Dissipation @T <sub>C</sub> =25°C	100	W
T <sub>j</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-65~150	°C


**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.25	°C/W

## isc Silicon NPN Power Transistor

## BU1706A

## ELECTRICAL CHARACTERISTICS

T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 50mA; I <sub>B</sub> = 0	750			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 1.5A; I <sub>B</sub> = 0.3A			1.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 1.5A; I <sub>B</sub> = 0.3A			1.3	V
I <sub>CES</sub>	Collector Cutoff Current	V <sub>CE</sub> = V <sub>CESM</sub> ; V <sub>BE</sub> = 0 V <sub>CE</sub> = V <sub>CESM</sub> ; V <sub>BE</sub> = 0; T <sub>C</sub> =125°C			1.0 2.0	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 12V; I <sub>C</sub> = 0			1.0	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 5mA; V <sub>CE</sub> = 10V	8			
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 400mA; V <sub>CE</sub> = 3V	12		35	
h <sub>FE-3</sub>	DC Current Gain	I <sub>C</sub> = 1.5A; V <sub>CE</sub> = 1V	5			

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