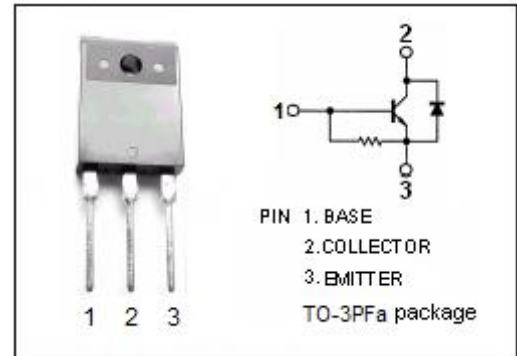


**isc Silicon NPN Power Transistor**
**BU2520DF**
**DESCRIPTION**

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

**APPLICATIONS**

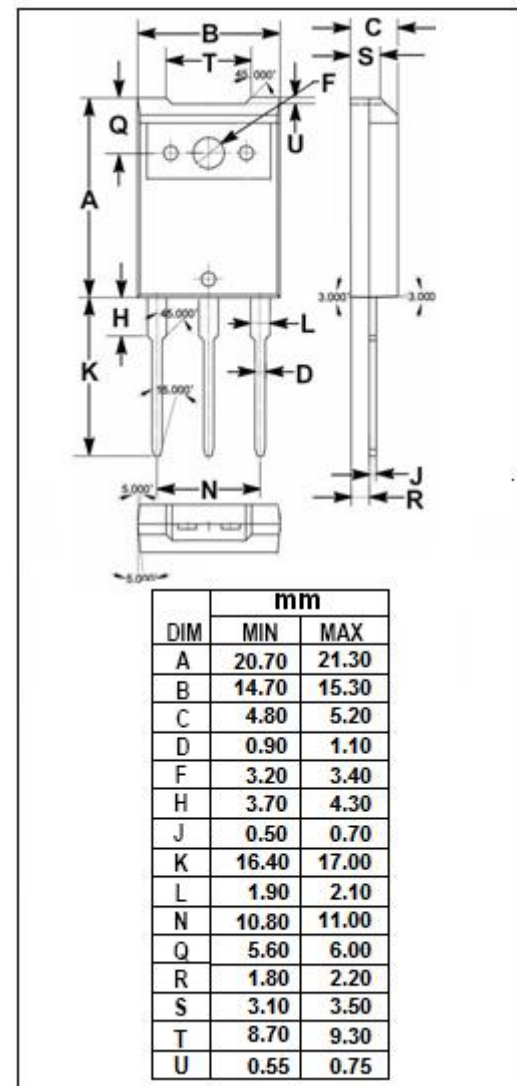
- For use in horizontal deflection circuits of large screen color TV receivers


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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	1500	V
V <sub>CEO</sub>	Collector-Emitter Voltage	800	V
V <sub>EBO</sub>	Emitter-Base Voltage	7.5	V
I <sub>C</sub>	Collector Current-Continuous	10	A
I <sub>CM</sub>	Collector Current-peak	25	A
I <sub>B</sub>	Base Current-Continuous	6	A
I <sub>BM</sub>	Base Current-peak	9	A
P <sub>C</sub>	Collector Power Dissipation @T <sub>C</sub> =25°C	45	W
T <sub>j</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	2.8	K/W



## isc Silicon NPN Power Transistor

## BU2520DF

## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 50mA; I <sub>B</sub> = 0	800			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 600mA; I <sub>C</sub> = 0	7.5	13.5		V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 6A; I <sub>B</sub> = 1.2A			5.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 6A; I <sub>B</sub> = 1.2A			1.1	V
I <sub>CES</sub>	Collector Cutoff Current	V <sub>CE</sub> = BV <sub>CES</sub> ; V <sub>BE</sub> = 0 V <sub>CE</sub> = BV <sub>CES</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> = 7.5V; I <sub>C</sub> = 0	100		300	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 1A; V <sub>CE</sub> = 5V		13		
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 6A; V <sub>CE</sub> = 5V	5	7	9.5	
V <sub>ECF</sub>	C-E Diode Forward Voltage	I <sub>F</sub> = 6A			2.2	V
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0 ; V <sub>CB</sub> = 10V; f <sub>test</sub> = 1MHz		115		pF

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