

# isc Silicon NPN Power Transistor

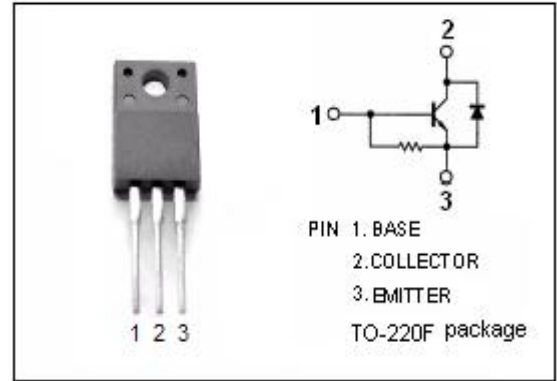
# BU1508DX

## DESCRIPTION

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

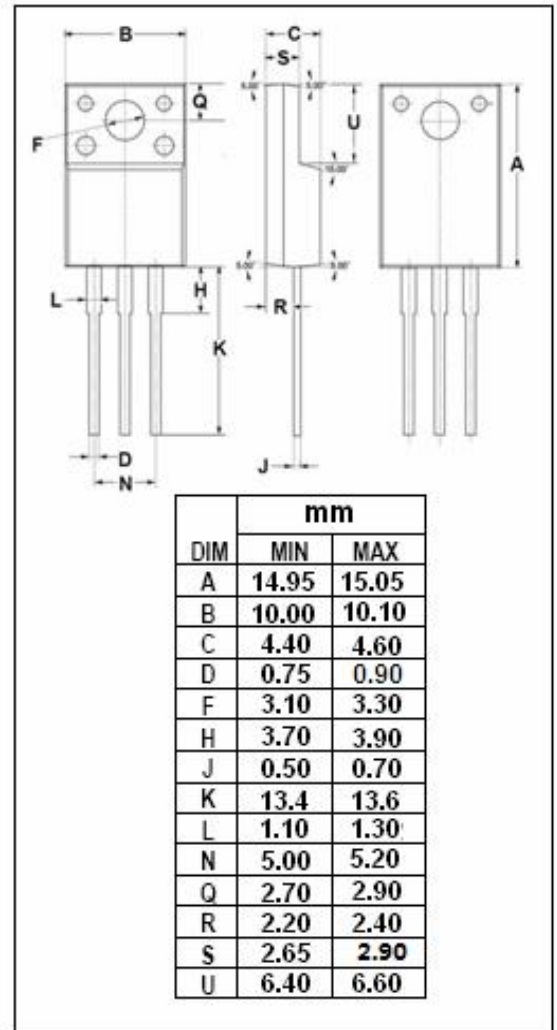
## APPLICATIONS

- Designed for use in horizontal deflection circuits of color TV receivers.



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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CES</sub>	Collector-Base Voltage V <sub>BE</sub> = 0	1500	V
V <sub>CEO</sub>	Collector-Emitter Voltage	700	V
V <sub>EBO</sub>	Emitter-Base Voltage	7.5	V
I <sub>C</sub>	Collector Current-Continuous	8	A
I <sub>CM</sub>	Collector Current-Peak	15	A
I <sub>B</sub>	Base Current-Continuous	4	A
I <sub>BM</sub>	Base Current-peak	6	A
P <sub>C</sub>	Collector Power Dissipation @T <sub>C</sub> =25°C	35	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	3.6	°C/W

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## ELECTRICAL CHARACTERISTICS

 $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=50\text{mA}; I_B=0$	700			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=600\text{mA}; I_C=0$	7.5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=4.5\text{A}; I_B=1.1\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=4.5\text{A}; I_B=1.7\text{A}$			1.3	V
$I_{CES}$	Collector Cutoff Current	$V_{CE}=V_{CES}; V_{BE}=0$ $V_{CE}=V_{CES}; V_{BE}=0; T_C=125^\circ\text{C}$			1.0 2.0	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=7.5\text{V}; I_C=0$	140		390	
$h_{FE-1}$	DC Current Gain	$I_C=1\text{A}; V_{CE}=5\text{V}$		13		
$h_{FE-2}$	DC Current Gain	$I_C=4.5\text{A}; V_{CE}=1\text{V}$	4		7	
$V_{ECF}$	C-E Diode Forward Voltage	$I_F=4.5\text{A}$			2.0	V

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