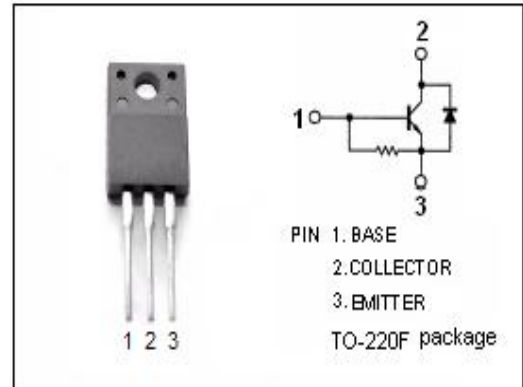


isc Silicon NPN Power Transistor
BU1506DX
DESCRIPTION

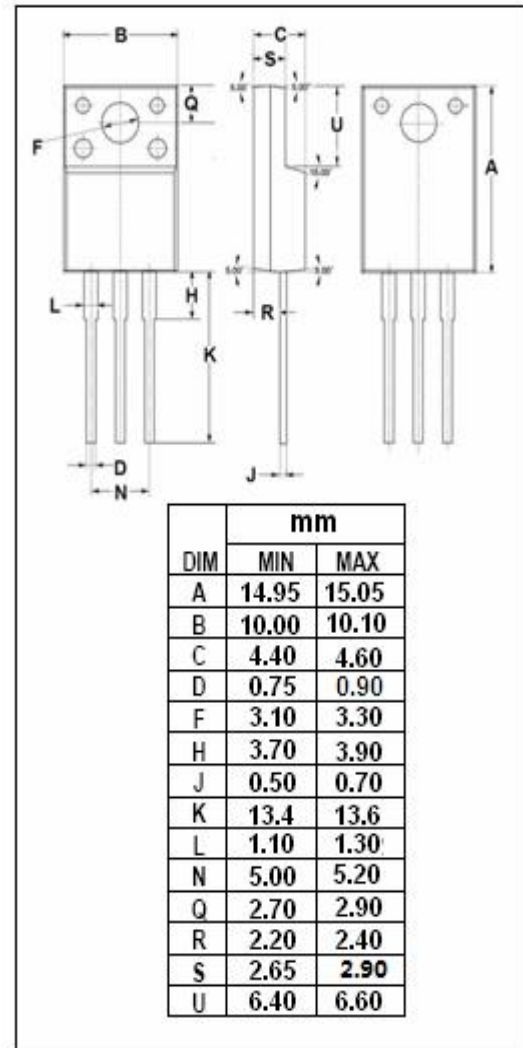
- High Voltage
- High Speed Switching
- Built-in Damper Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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


ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Base Voltage $V_{BE}=0$	1500	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	7.5	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	8	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	32	W
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-40~150	$^\circ\text{C}$


THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	4.0	$^\circ\text{C/W}$

isc Silicon NPN Power Transistor**BU1506DX****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	$I_C=3\text{A}; I_B=0.79\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.79\text{A}$			1.1	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	$V_{EB}=7.5\text{V}; I_C=0$	90		180	
h_{FE-1}	DC Current Gain	$I_C=0.3\text{A}; V_{CE}=5\text{V}$		12		
h_{FE-2}	DC Current Gain	$I_C=3\text{A}; V_{CE}=5\text{V}$	3.8		7.5	
V_{ECF}	C-E Diode Forward Voltage	$I_F=3\text{A}$			2.0	V

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