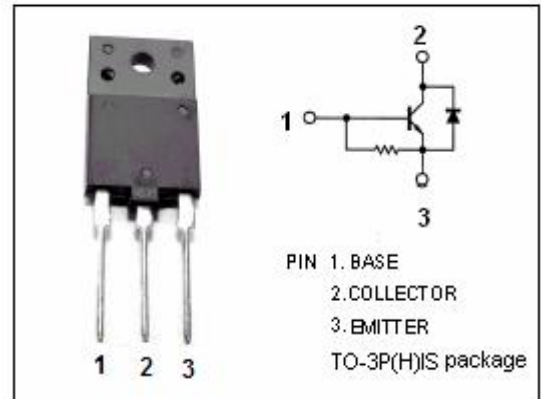


**isc Silicon NPN Power Transistor**
**BU2507DX**
**DESCRIPTION**

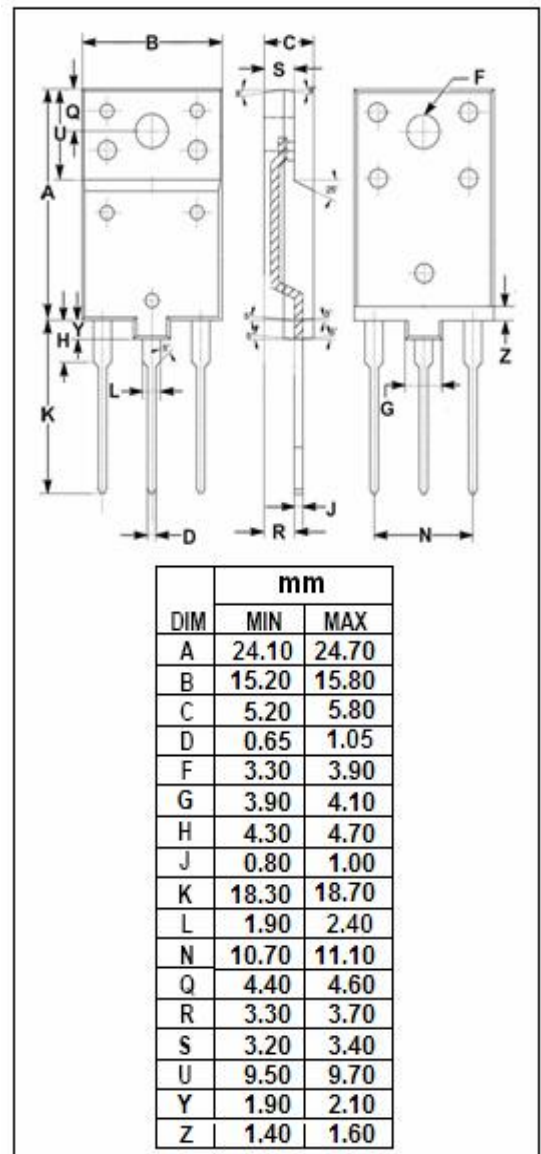
- High Switching Speed
- High Voltage
- Built-in Ddamper Ddiode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for use in horizontal deflection circuits of colour TV receivers and computer monitors.


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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{\text{CBO}}$	Collector-Base Voltage	1500	V
$V_{\text{CEO}}$	Collector-Emitter Voltage	700	V
$V_{\text{EBO}}$	Emitter-Base Voltage	7.5	V
$I_{\text{C}}$	Collector Current-Continuous	8	A
$I_{\text{CM}}$	Collector Current-peak	15	A
$I_{\text{B}}$	Base Current-Continuous	4	A
$I_{\text{BM}}$	Base Current-peak	6	A
$P_{\text{C}}$	Collector Power Dissipation @ $T_{\text{C}}=25^\circ\text{C}$	45	W
$T_{\text{j}}$	Junction Temperature	150	$^\circ\text{C}$
$T_{\text{stg}}$	Storage Temperature Range	-65~150	$^\circ\text{C}$


**THERMAL CHARACTERISTICS**


SYMBOL	PARAMETER	MAX	UNIT
$R_{\text{th j-c}}$	Thermal Resistance, Junction to Case	2.8	K/W

## isc Silicon NPN Power Transistor

## BU2507DX

## 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, L= 25mH	700			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> = 4A ; I <sub>B</sub> = 0.8A			5.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage 	I <sub>C</sub> = 4A ; I <sub>B</sub> = 0.8A			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		160		mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 1A ; V <sub>CE</sub> = 5V		14		
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 4A ; V <sub>CE</sub> = 5V	5	7	9	
V <sub>ECF</sub>	C-E Diode Forward Voltage	I <sub>F</sub> = 4A			2.0	V
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0 ; V <sub>CB</sub> = 10V; f <sub>test</sub> = 1MHz		68		pF

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