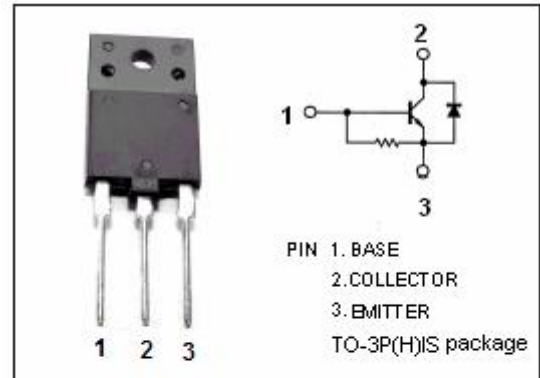


**isc Silicon NPN Power Transistor**
**BU2525DX**
**DESCRIPTION**

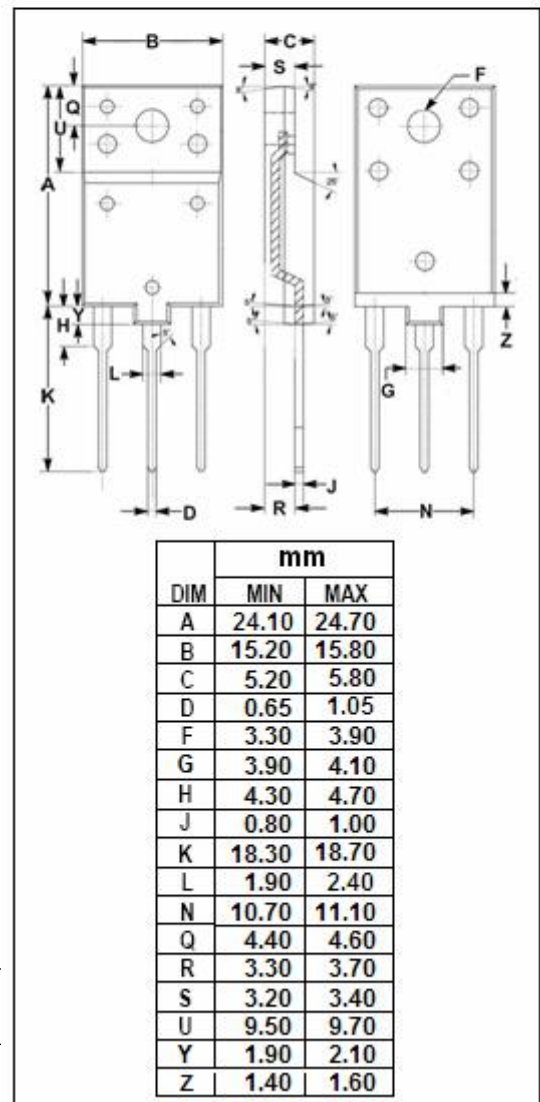
- High Switching Speed
- High Voltage
- Built-in Ddamper Ddiode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

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


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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	1500	V
$V_{CEO}$	Collector-Emitter Voltage	800	V
$V_{EBO}$	Emitter-Base Voltage	7.5	V
$I_C$	Collector Current-Continuous	12	A
$I_{CM}$	Collector Current-peak	30	A
$I_B$	Base Current-Continuous	8	A
$I_{BM}$	Base Current-peak	12	A
$P_C$	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	45	W
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$


**THERMAL CHARACTERISTICS**

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

## isc Silicon NPN Power Transistor

## BU2525DX

## 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			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 8A; I <sub>B</sub> = 1.6A			5.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 8A; I <sub>B</sub> = 1.6A			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> = 6V; I <sub>C</sub> = 0	72		218	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 1A; V <sub>CE</sub> = 5V		11		
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 8A; V <sub>CE</sub> = 5V	5	7	9.5	
V <sub>ECF</sub>	C-E Diode Forward Voltage	I <sub>F</sub> = 8A			2.0	V
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0 ; V <sub>CB</sub> = 10V; f <sub>test</sub> = 1MHz		145		pF

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