

# **isc Silicon NPN Power Transistor**

# **BU2522DF**

#### **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 high resolution monitors.

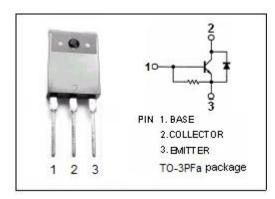


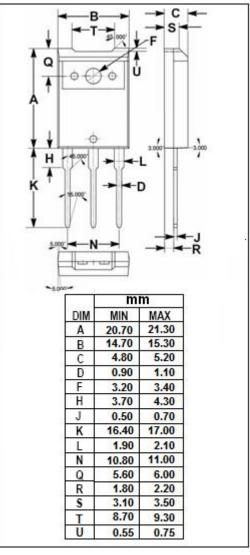
# ABSOLUTE MAXIMUM RATINGS (Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	1500	V
V <sub>CEO</sub>	Collector-Emitter Voltage	800	V
V <sub>EBO</sub>	Emitter-Base Voltage	7.5	V
Ic	Collector Current-Continuous	10	Α
I <sub>CM</sub>	Collector Current-peak	25	Α
I <sub>B</sub>	Base Current-Continuous	6	А
I <sub>BM</sub>	Base Current-peak	9	Α
Pc	Collector Power Dissipation @T <sub>C</sub> =25℃	45	W
T <sub>j</sub>	Junction Temperature	150	$^{\circ}$
T <sub>stg</sub>	Storage Temperature Range	-65~150	$^{\circ}$

### THERMAL CHARACTERISTICS

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







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#### **ELECTRICAL CHARACTERISTICS**

Tc=25℃ 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			1.3	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℃			0.25 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		10		
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 6A ; V <sub>CE</sub> = 5V	5		8	
V <sub>ECF</sub>	C-E Diode Forward Voltage	I <sub>F</sub> = 6A			2.0	٧
Сов	Output Capacitance	I <sub>E</sub> = 0 ; V <sub>CB</sub> = 10V;f <sub>test</sub> = 1MHz		115		pF

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