

isc Silicon NPN Power Transistors
BU508DF
DESCRIPTION

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

APPLICATIONS

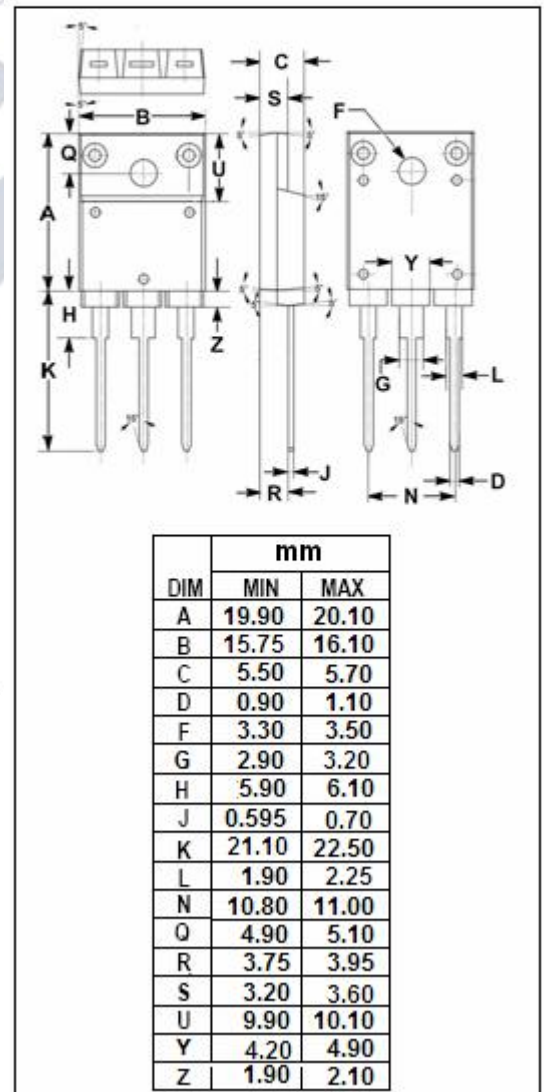
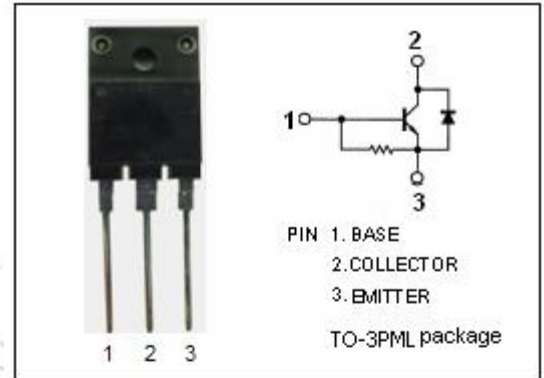
- Designed for use in horizontal deflection circuits of colour TV receivers.

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	700	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	8	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current	4	A
I_{BM}	Base Current-Peak	6	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	34	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.7	K/W



isc Silicon NPN Power Transistor**BU508DF****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA ; I _B = 0	700			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 4.5A; I _B = 1.6A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 4.5A ; I _B = 2A			1.1	V
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C =0			300	mA
I _{CES}	Collector Cutoff Current	V _{CB} = BV _{CB0} ; I _E = 0 V _{CB} = BV _{CB0} ; I _E = 0; T _C =125°C			1.0 2.0	mA
h _{FE}	DC Current Gain	I _C = 0.1A ; V _{CE} = 5V	6		30	
f _T	Current-Gain—Bandwidth Product	I _C = 0.1A ; V _{CE} = 5V		7		MHz
C _{OB}	Output Capacitance	I _E = 0 ; V _{CB} = 10V; f _{test} = 1MHz		125		pF
V _{ECF}	C-E Diode Forward Voltage	I _F = 4.5A		1.6	2.0	V

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