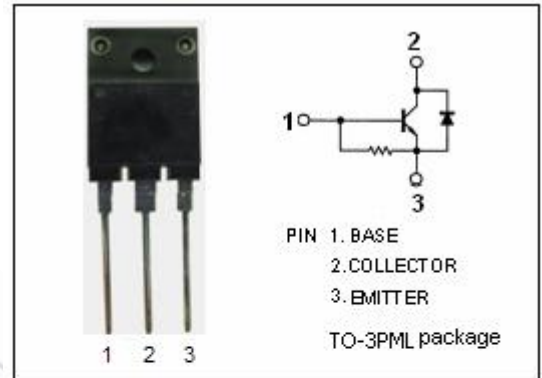


isc Silicon NPN Power Transistors
BU508DF
DESCRIPTION

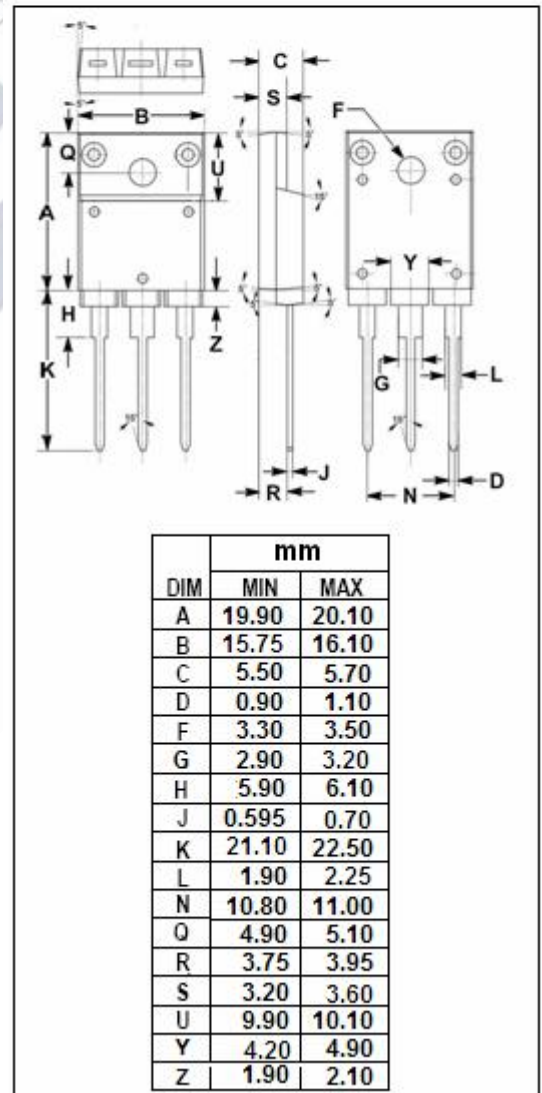
- High Switching Speed
- High Voltage
- Built-in Integrated Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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


ABSOLUTE MAXIMUM RATINGS(T_a=25°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°C	34	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-65~150	°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 _{CEQ(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