

isc Silicon NPN Power Transistor
BU1506DF
DESCRIPTION

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

APPLICATIONS

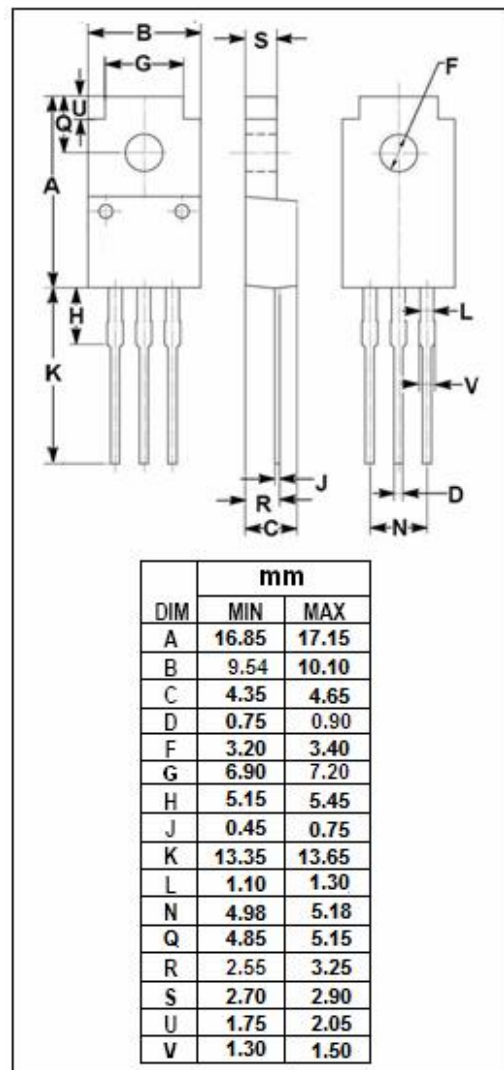
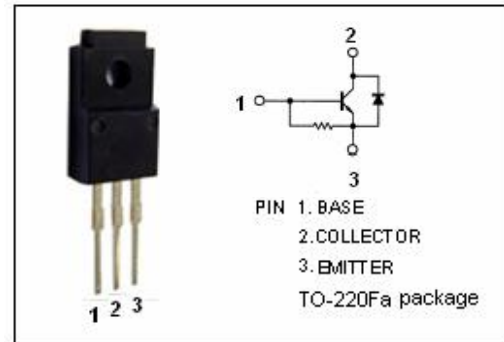
- Designed for use in horizontal deflection circuits of color TV receivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Base Voltage $V_{BE}=0$	1500	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	7.5	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	8	A
I_B	Base Current-Continuous	3	A
I_{BM}	Base Current-peak	8	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	32	W
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-40~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	4.0	$^\circ\text{C}/\text{W}$



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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 _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 600mA; I _C = 0	7.5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 3A; I _B = 0.79A			5.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 3A; I _B = 0.79A			1.1	V
I _{CES}	Collector Cutoff Current	V _{CE} = V _{CES} ; V _{BE} = 0 V _{CE} = V _{CES} ; V _{BE} = 0; T _C =125°C			1.0 2.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7.5V; I _C = 0	90		180	
h _{FE-1}	DC Current Gain	I _C = 0.3A ; V _{CE} = 5V		12		
h _{FE-2}	DC Current Gain	I _C = 3A ; V _{CE} = 5V	3.8		7.5	
V _{ECF}	C-E Diode Forward Voltage	I _F = 3A			2.0	V

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