

isc Silicon NPN Power Transistor

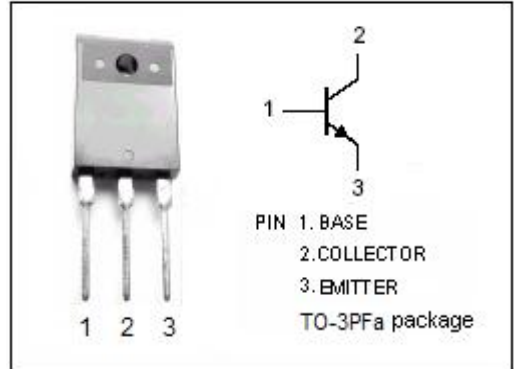
BU706F

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 700V(\text{Min})$
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

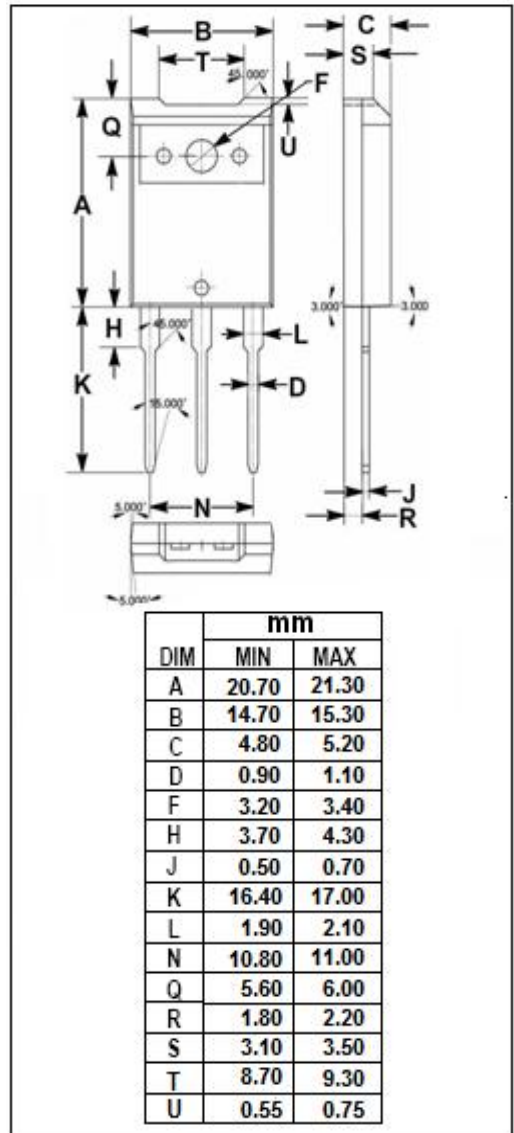
APPLICATIONS

- Designed for use in horizontal deflection circuits of color TV receivers and line operated switch-mode applications



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector- Emitter Voltage $V_{BE}=0$	1500	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	6	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	5	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	-65~150	$^{\circ}\text{C}$



THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	3.95	$^{\circ}\text{C}/\text{W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	35	$^{\circ}\text{C}/\text{W}$

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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA ;I _B = 0	700			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 3A; I _B = 1.33A			5.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 3A; I _B = 1.33A			1.3	V
I _{CES}	Collector Cutoff Current	V _{CE} = V _{CESmax} ; V _{BE} = 0 V _{CE} = V _{CESmax} ; V _{BE} = 0; T _J = 125°C			0.5 1.0	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C =0			10	mA
h _{FE}	DC Current Gain	I _C = 0.1A; V _{CE} = 5V	6		30	
I _{S/B}	Second Breakdown Current	V _{CE} = 300V; t _p = 200 μ s	1.0			A

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