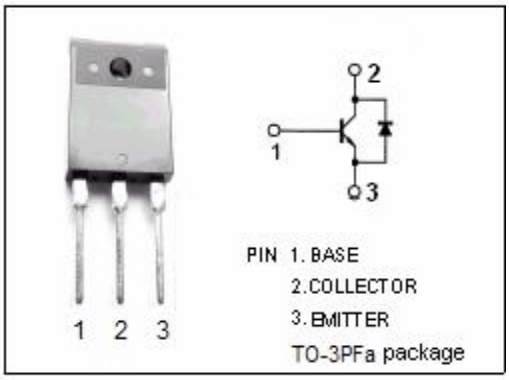
isc Silicon NPN Power Transistor — BU706DF

DESCRIPTION

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



APPLICATIONS

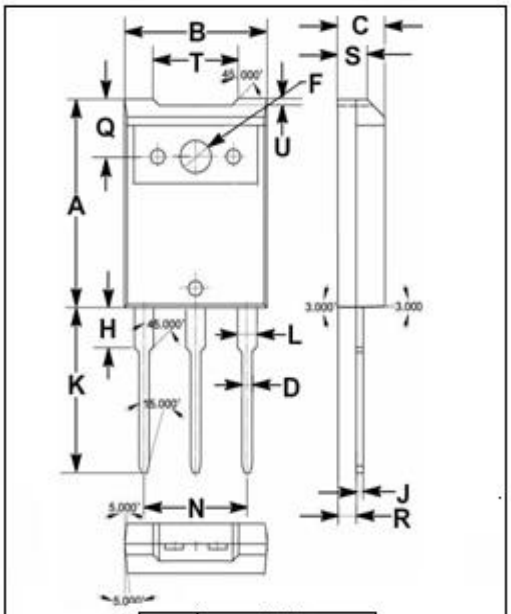
- Designed for use in horizontal deflection circuits of color TV receivers and line operated switch-mode applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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℃	32	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

THERMAL CHARACTERISTICS

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



DIM	mm MIN	MAX
A	20.70	21.30
B	14.70	15.30
C	4.80	5.20
D	0.90	1.10
F	3.20	3.40
H	3.70	4.30
J	0.50	0.70
K	16.40	17.00
L	1.90	2.10
N	10.80	11.00
Q	5.60	6.00
R	1.80	2.20
S	3.10	3.50
T	8.70	9.30
U	0.55	0.75

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ELECTRICAL CHARACTERISTICS

T_C=25℃ 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= 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℃			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	
V_{ECF}	C-E Diode Forward Voltage	I_F= 3A		1.5	2.2	V
$I_{S/B}$	Second Breakdown Current	V_{CE}= 300V; t_p= 200 μ s	1.0			A