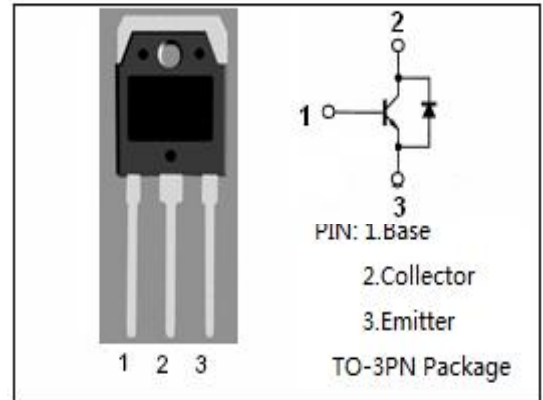


isc Silicon NPN Power Transistor
BU705D
DESCRIPTION

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

APPLICATIONS

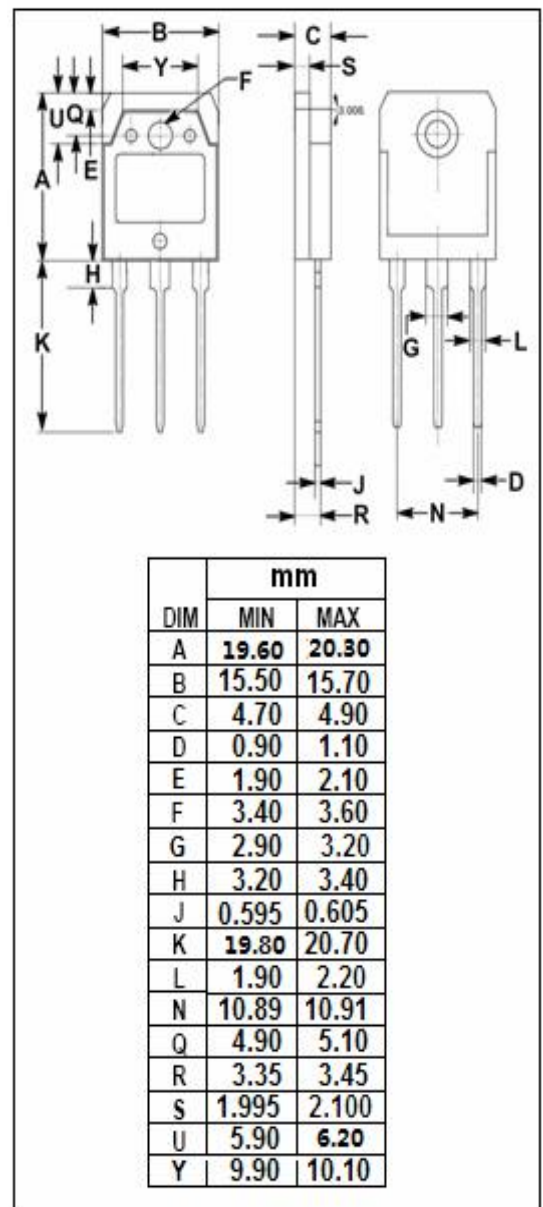
- Designed for use in horizontal deflection circuits of TV receivers.


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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector- Emitter Voltage ($V_{BE} = 0$)	1300	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current- Continuous	2.5	A
I_{CM}	Collector Current-Peak $t_p < 2ms$	4	A
I_B	Base Current- Continuous	2	A
I_{BM}	Base Current-Peak $t_p < 2ms$	4	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	75	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-65~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.67	$^\circ C/W$



isc Silicon NPN Power Transistor

BU705D

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 = 10mA ; I _C = 0	6			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2A; I _B = 0.9A			5	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 2A; I _B = 0.9A			1.3	V
I _{CES}	Collector Cutoff Current	V _{CE} = V _{CEsmax} ; V _{BE} = 0 V _{CE} = V _{CEsmax} ; V _{BE} = 0; T _C =125°C			0.15 1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V ; I _C = 0			1	mA
h _{FE}	DC Current Gain	I _C = 2A ; V _{CE} = 5V	2.25			
V _{ECF}	C-E Diode Forward Voltage	I _F = 3A		1.8		V
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f _{test} = 0.1MHz		65		pF
f _T	Current-Gain—Bandwidth Product	I _C = 0.1A; V _{CE} = 5V; f _{test} = 5MHz		7		MHz

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