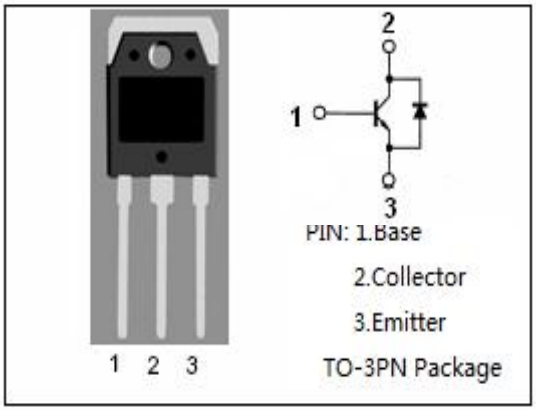
isc Silicon NPN Power Transistor — BU705D

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

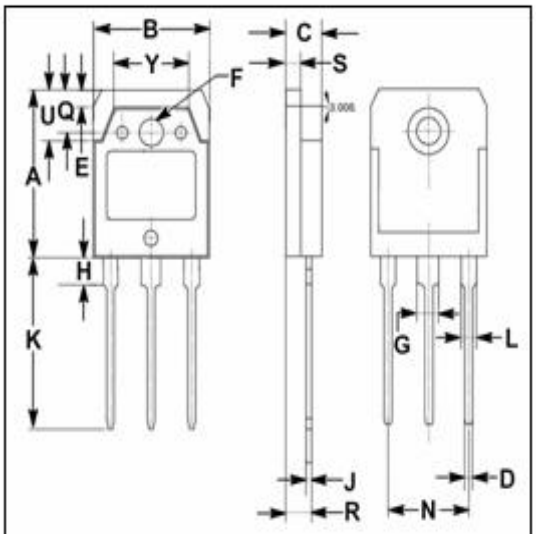
- Designed for use in horizontal deflection circuits of TV receivers.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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℃	75	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	1.67	℃/W



DIM	mm MIN	mm MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

isc Silicon NPN Power Transistor BU705D

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
$V_{(BR)EBO}$	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℃			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