

isc Silicon NPN Power Transistor
BUV70
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 600V$ (Min)
- High Power Dissipation
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

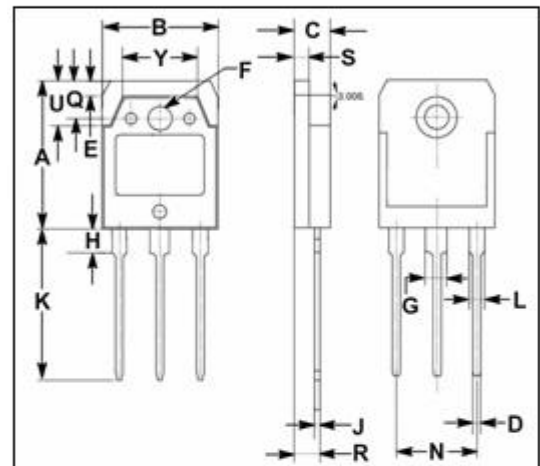
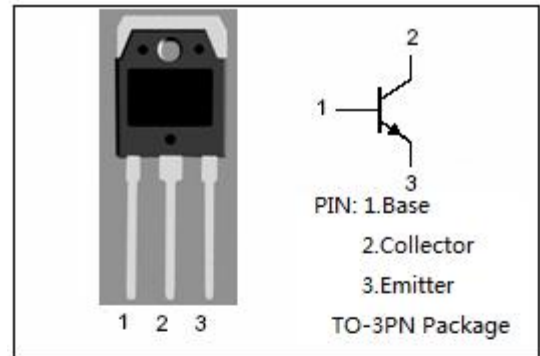
- Designed for motor controls, switching mode power supplies applications.

Absolute maximum ratings ($T_a = 25^\circ C$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage	1300	V
V_{CEO}	Collector-Emitter Voltage	600	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current-Continuous	3	A
I_{BM}	Base Current-peak	6	A
P_C	Collector Power Dissipation @ $T_c = 25^\circ C$	140	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	0.89	$^\circ C/W$



DIM	mm	
	MIN	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

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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _c = 50mA; I _b =0	600		V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	6		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 9A; I _B = 3A		1.8	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 9A; I _B = 3A		2.0	V
I _{CES}	Collector Cutoff Current	V _{CE} = 1300V; V _{BE} = 0 V _{CE} = 1200V; V _{BE} = 0; T _C =125°C		1.0 2.0	mA
h _{FE-1}	DC Current Gain	I _C = 3.2A; V _{CE} = 2V	5		
h _{FE-2}	DC Current Gain	I _C = 1.5A; V _{CE} = 5V	7		
h _{FE-3}	DC Current Gain	I _C = 6A; V _{CE} = 2V	5		

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