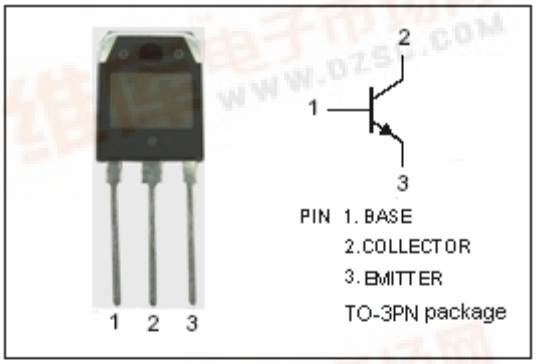
isc Silicon NPN Power Transistor BUV70

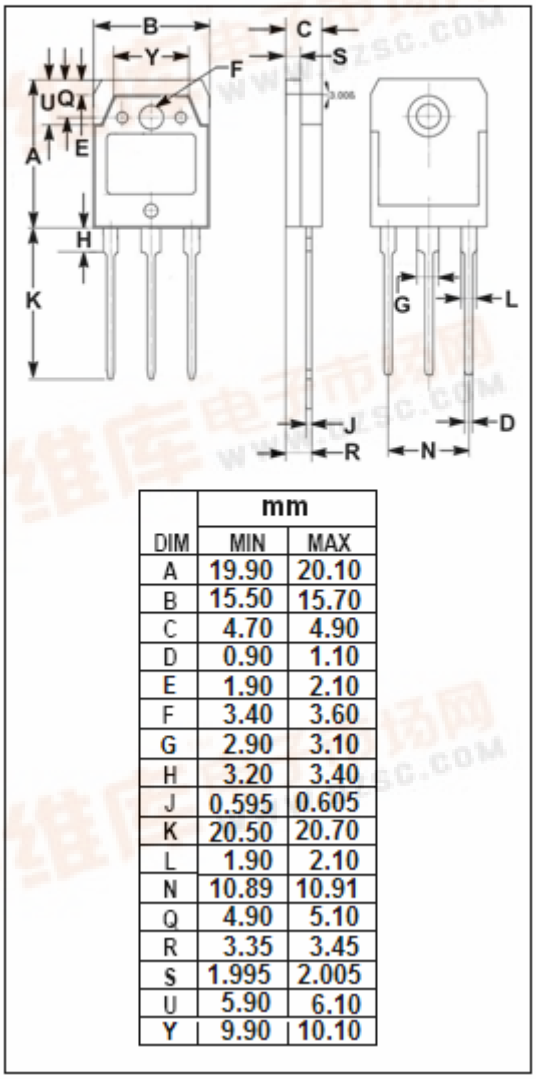
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 600V (Min)
- High Power Dissipation
- Fast Switching Speed



APPLICATIONS

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



DIM	mm MIN	MAX
A	19.90	20.10
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	3.10
H	3.20	3.40
J	0.595	0.605
K	20.50	20.70
L	1.90	2.10
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.005
U	5.90	6.10
Y	9.90	10.10

Absolute maximum ratings(Ta=25℃)

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℃	140	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	0.89	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN		MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 100mA; L_C= 125mH	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℃			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			
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A; V_{CE}= 10V, f= 1MHz		9		MHz
Switching times Resistive Load						
t_{on}	Turn-on Time	I_C= 5A; I_{B1}= -I_{B2}= 1A; V_{CC}= 250V; t_p= 20μs			0.5	μs
t_s	Storage Time				4.0	μs
t_f	Fall Time				0.6	μs