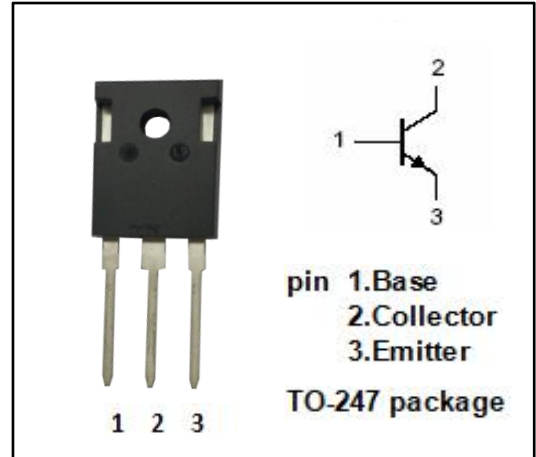


isc Silicon NPN Power Transistor
BUT70W
DESCRIPTION

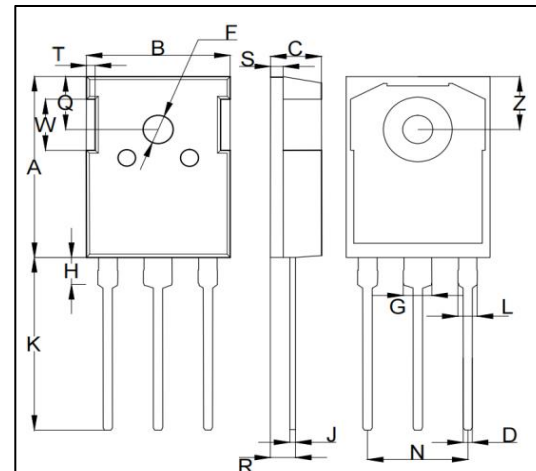
- High Current Capability
- Very Low Saturation Voltage and High Gain
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for switching regulation, motor control and High frequency and efficiency converters.


ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CEO}	Collector-Emitter Voltage	125	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current- Continuous	40	A
I _{CM}	Collector Current-Peak	120	A
I _B	Base Current- Continuous	8	A
I _{BM}	Base Current-Peak	24	A
P _C	Collector Power Dissipation @ T _C =25°C	200	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-65~150	°C



DIM	mm	
	MIN	MAX
A	19.80	21.50
B	15.40	15.90
C	4.70	5.30
D	0.90	1.26
F	3.50	3.90
G	2.70	3.30
H	3.90	4.10
J	0.500	0.700
K	19.50	20.50
L	1.90	2.20
N	10.80	11.00
Q	6.00	6.30
R	2.90	3.30
S	1.80	2.20
T	2.15	2.35
W	4.90	5.10
Z	6.00	6.30

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	0.63	°C/W

isc Silicon NPN Power Transistor

BUT70W

ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA ; I _B = 0	125			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 70A; I _B = 7A			0.9	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 35A; I _B =1.75A			0.9	V
V _{BE(sat)-1}	Base-Emitter Saturation Voltage	I _C =70A; I _B = 7A			1.8	V
V _{BE(sat)-2}	Base-Emitter Saturation Voltage	I _C =35A; I _B = 1.75A			1.4	V
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5.0V ; I _C = 0			1	mA

Switching times

t _{stg}	Storage Time			1.8		μs
t _f	Fall Time	I _C = 35A , I _{B1} = 1.75A; L _B = 150 μ H		0.2		μs

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