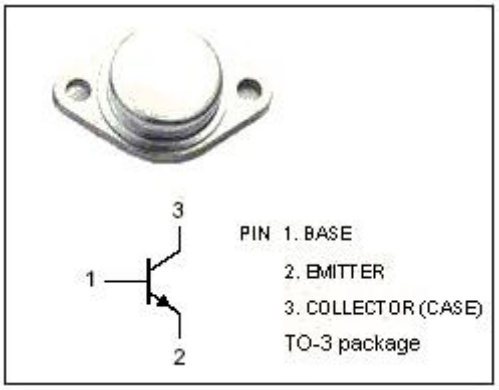
isc Silicon NPN Power Transistor BUP52

DESCRIPTION

- High DC Current Gain-
  : h_{FE}>20@I_C= 20A
- Low Collector-Emitter Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

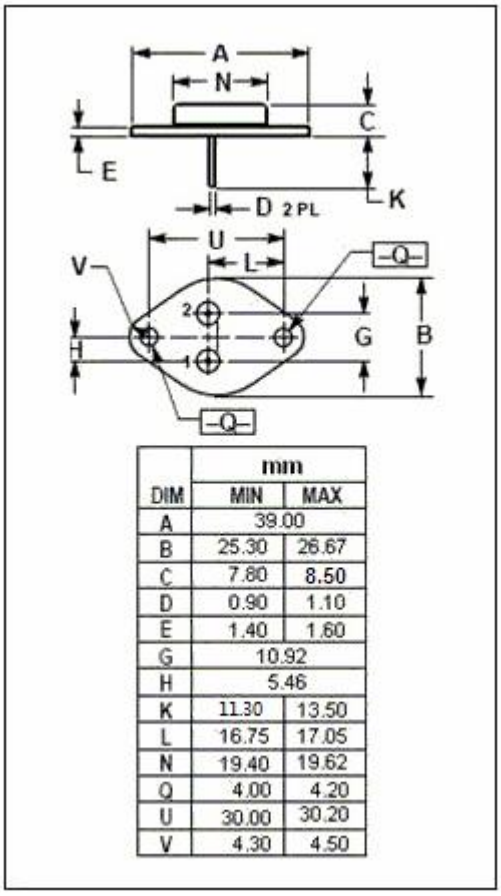


APPLICATIONS

- Ideally suited for Motor Control, Switching and Linear Applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	250	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current-Continuous	70	A
I_{CM}	Peak collector current	90	A
P_C	Collector Power Dissipation@T_C=25℃	300	W
T_J	Junction Temperature	-55~200	℃
T_{stg}	Storage Temperature Range	-55~200	℃



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.58	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CEO(BR)}$	Collector-Emitter Breakdown Voltage	I_C=10mA; I_B=0	200			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C=20A; I_B=2A			0.5	V
		I_C=40A; I_B=4A			0.6	
		I_C=70A; I_B=14A			0.9	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C=20A; I_B=2A			1.1	V
		I_C=40A; I_B=5A			1.2	
		I_C=70A; I_B=15A			1.5	
I_{CBO}	Collector Cutoff Current	V_{CE}=300V; V_{EB}=1.5V			0.1	mA
		V_{CE}=300V; V_{EB}=1.5V;T_C=150℃			5	
I_{EBO}	Emitter Cutoff current	V_{EB}=4V; I_C=0			1.0	mA
h_{FE}	DC Current Gain	I_C=20A ; V_{CE}=4V	20			
		I_C=40A ; V_{CE}=4V	12			
		I_C=70A ; V_{CE}=4V	8			

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