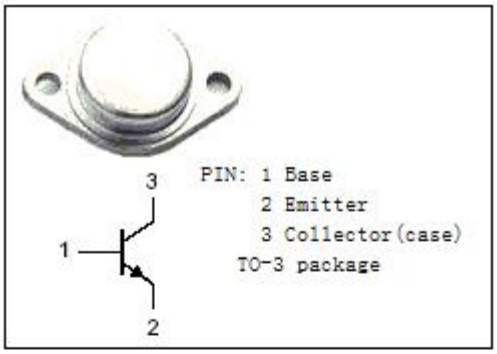
isc Silicon NPN Power Transistor BUR20

DESCRIPTION

- High DC Current Gain-h_{FE}=10(Min)@I_C = 50A
- Low Saturation Voltage-
  $V_{CE(sat)}$= 1.0V(Max)@ I_C = 25A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

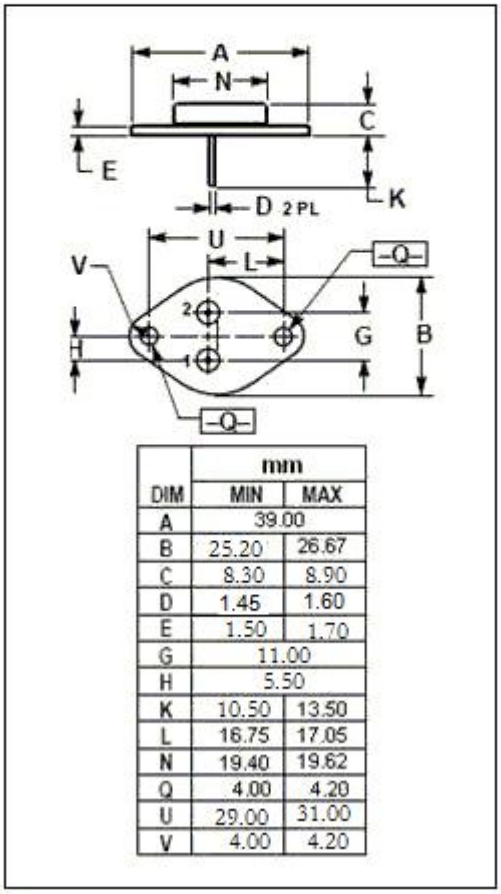
- Designed for use in high power amplifier and switching circuits applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	125	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	50	A
I_B	Base Current-Continuous	15	A
P_C	Collector Power Dissipation @T_C=25℃	250	W
T_J	Junction Temperature	200	℃
T_{stg}	Storage Temperature	-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.584	℃/W



DIM	mm MIN	MAX
A	39.00	
B	25.20	26.67
C	8.30	8.90
D	1.45	1.60
E	1.50	1.70
G	11.00	
H	5.50	
K	10.50	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	29.00	31.00
V	4.00	4.20

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C=50mA ; I_B=0	125		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 25A; I_B=2.5A		1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 50A; I_B=10A		3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 25A; I_B=2.5A		2.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 25A ; V_{CE}=2V		2.0	V
I_{CEO}	Collector Cutoff Current	V_{CE}=125V; I_B=0		0.5	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 200V; I_C=0		0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C=0		0.1	mA
h_{FE-1}	DC Current Gain	I_C= 1A ; V_{CE}= 2V	60	200	
h_{FE-2}	DC Current Gain	I_C= 25A ; V_{CE}= 2V	20	70	
h_{FE-3}	DC Current Gain	I_C= 50A ; V_{CE}= 4V	10		
f_T	Current Gain-Bandwidth Product	I_C= 0.5A ; V_{CE}= 10V;f=1.0MHz	10		MHz