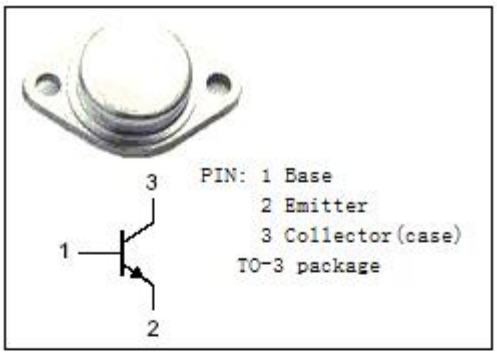
isc Silicon NPN Power Transistor BUR22

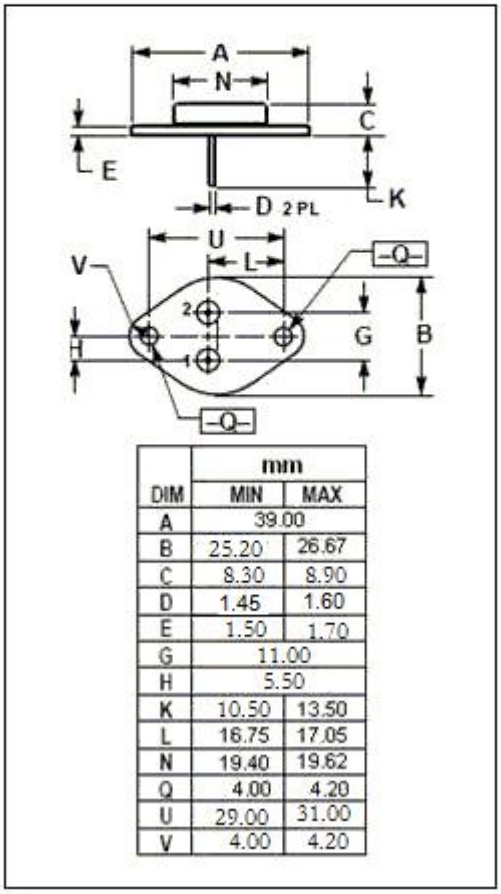
DESCRIPTION

- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= 1.0V (Max.) @I_C= 20A
- High Switching Speed
- High DC Current Gain-
  : h_{FE}= 10(Min.) @I_C= 20A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for high current, high speed, high power applications.



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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	350	V
V_{CEO}	Collector-Emitter Voltage	250	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	40	A
I_{CM}	Collector Current-Peak	50	A
I_B	Base Current-Continuous	8	A
P_C	Collector Power Dissipation @T_C=25℃	250	W
T_j	Junction Temperature	200	℃
T_{stg}	Storage Temperature Range	-65~200	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.7	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 50mA; I_B= 0	250			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA; I_C= 0	7			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 20A; I_B=2A			1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 40A ;I_B= 10A			3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 20A; I_B=2A			2.0	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 250V; I_B= 0			0.5	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 350V; 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}= 4V	60		200	
h_{FE-2}	DC Current Gain	I_C= 10A ; V_{CE}= 4V	20			
h_{FE-3}	DC Current Gain	I_C= 20A ; V_{CE}= 4V	10			
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A;V_{CE}= 10V, f_{test}= 1MHz	10			MHz