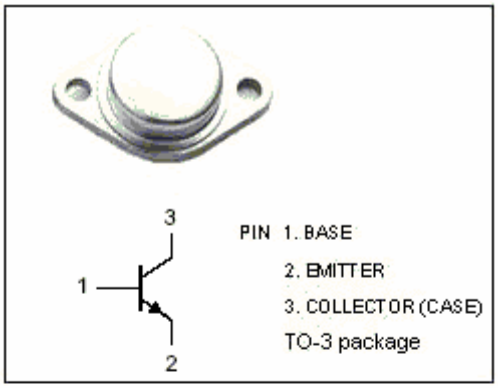
isc Silicon NPN Power Transistors BUS21B/C

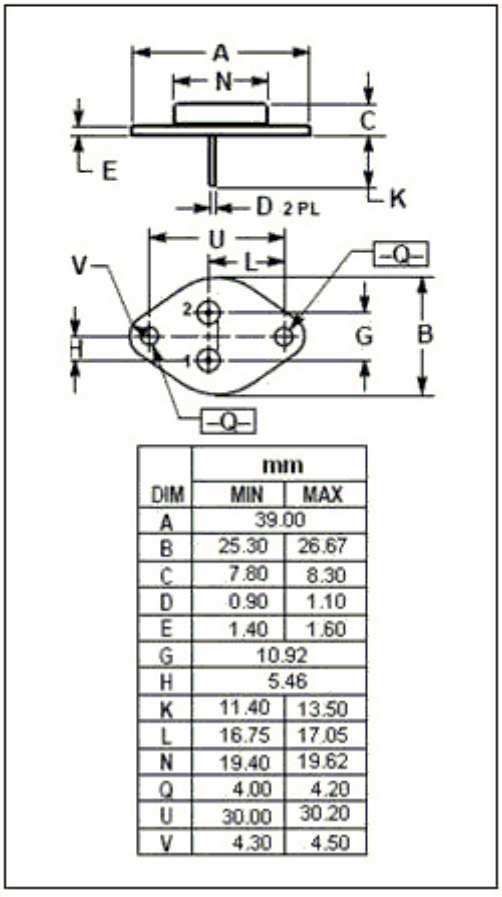
DESCRIPTION

- High Switching Speed
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 400V (Min)-BUS21B
  450V (Min)-BUS21C

APPLICATIONS

- Designed for use in converters, inverters, switching regulators, motor control systems etc.





DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.30
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.40	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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		MAX	UNIT
V_{CES}	Collector- Emitter Voltage(V_{BE}= 0)	BUS21B	750	V
		BUS21C	850	
V_{CEO}	Collector-Emitter Voltage	BUS21B	400	V
		BUS21C	450	
V_{EBO}	Emitter-Base Voltage		9	V
I_C	Collector Current-Continuous		5	A
I_{CM}	Collector Current-Peak		10	A
I_B	Base Current		2	A
I_{BM}	Base Current-Peak		4	A
P_C	Collector Power Dissipation @T_C=25℃		100	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	1.75	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER		CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	BUS21B	I_C= 0.1A ; I_B= 0; L= 25mH	400			V
		BUS21C		450			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	BUS21B	I_C= 3A; I_B= 0.4A			1.5	V
		BUS21C	I_C= 3A; I_B= 0.5A			1.5	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	BUS21B	I_C= 3A; I_B= 0.4A			1.5	V
		BUS21C	I_C= 3A; I_B= 0.5A			1.5	
I_{CES}	Collector Cutoff Current		V_{CE}=$V_{CESMmax}$; V_{BE}= 0			1	mA
I_{EBO}	Emitter Cutoff Current		V_{EB}= 9V; I_C= 0			10	mA
h_{FE-1}	DC Current Gain		I_C= 0.5A ; V_{CE}= 10V		25		
h_{FE-2}	DC Current Gain	BUS21B	I_C= 3A ; V_{CE}= 1.5V	7.5			
		BUS21C		6			