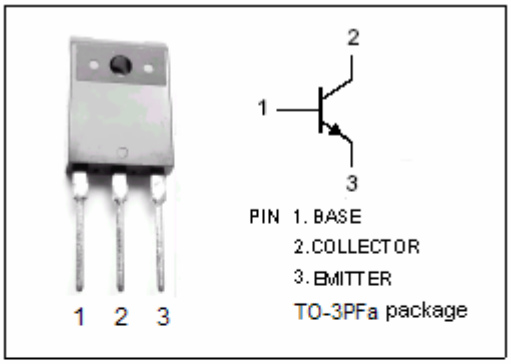
isc Silicon NPN Power Transistor BUP22BF/CF

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 400V(Min)-BUP22BF
  = 450V(Min)-BUP22CF
- High Switching Speed

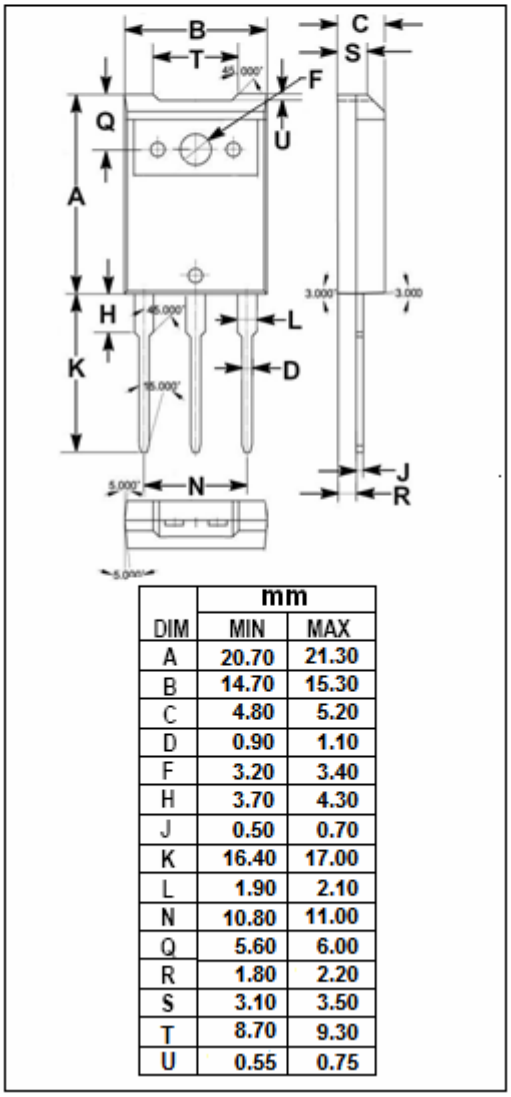


APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER		VALUE	UNIT
V_{CES}	Collector- Emitter Voltage V_{BE}=0	BUP22BF	750	V
		BUP22CF	850	
V_{CEO}	Collector-Emitter Voltage	BUP22BF	400	V
		BUP22CF	450	
V_{EBO}	Emitter-Base Voltage		9	V
I_C	Collector Current-Continuous		8	A
I_{CM}	Collector Current-Peak		20	A
I_B	Base Current-Continuous		4	A
I_{BM}	Base Current-Peak		6	A
P_C	Collector Power Dissipation @ T_C=25℃		34	W
T_J	Junction Temperature		150	℃
T_{stg}	Storage Temperature Range		-65~150	℃



DIM	mm MIN	MAX
A	20.70	21.30
B	14.70	15.30
C	4.80	5.20
D	0.90	1.10
F	3.20	3.40
H	3.70	4.30
J	0.50	0.70
K	16.40	17.00
L	1.90	2.10
N	10.80	11.00
Q	5.60	6.00
R	1.80	2.20
S	3.10	3.50
T	8.70	9.30
U	0.55	0.75

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	3.7	℃/W
Rth j-a	Thermal Resistance, Junction to Ambient	35	℃/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	BUP22BF	I_C= 0.1A ;I_B= 0; L=25 mH	400			V
		BUP22CF		450			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	BUP22BF	I_C= 6A; I_B= 0.8A			1.5	V
		BUP22CF	I_C= 6A; I_B= 1A			1.5	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	BUP22BF	I_C= 6A; I_B= 0.8A			1.5	V
		BUP22CF	I_C= 6A; I_B= 1A			1.5	
I_{CES}	Collector Cutoff Current		V_{CE}= V_{CESmax};V_{BE}= 0 V_{CE}= V_{CESmax};V_{BE}= 0; T_J= 125℃			1 2	mA
I_{EBO}	Emitter Cutoff Current		V_{EB}= 9V; I_C=0			10	mA
h_{FE}	DC Current Gain		I_C= 1A; V_{CE}= 5V		25		

Switching Times; Resistive Load

t_{on}	Turn-On Time	For BUP22BF I_C= 6A; I_{B1}= -I_{B2}= 0.8A For BUP22CF I_C= 6A; I_{B1}= -I_{B2}= 1A			1.0	μs
t_s	Storage Time				4.5	μs
t_f	Fall Time				0.7	μs