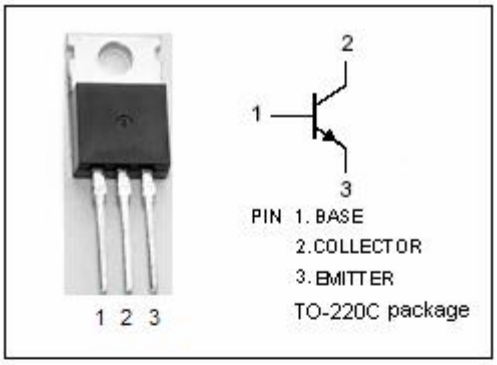
isc Silicon NPN Power Transistor — BUX84A

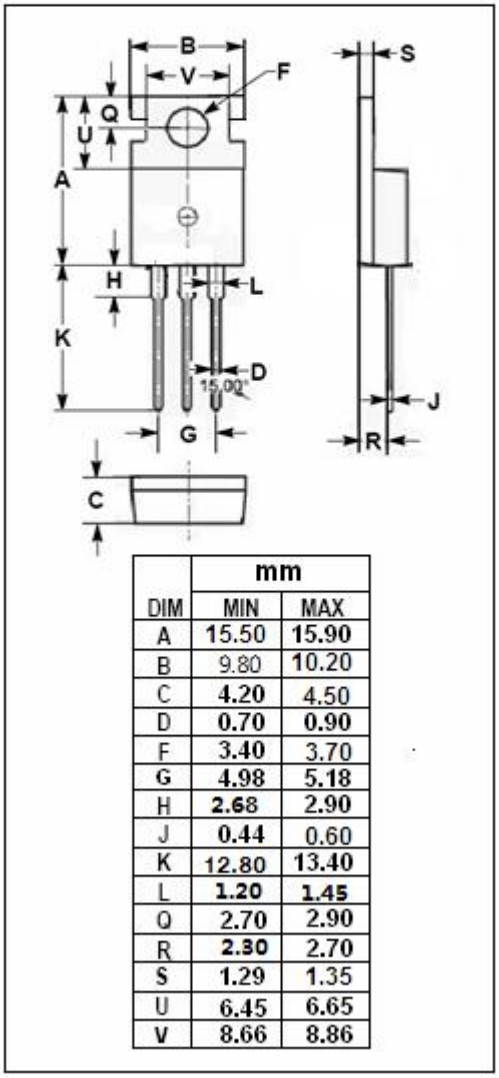
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 400V(Min.)
- High Speed Switching
- High Reliability
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for use in high-voltage,high-speed,power switching regulators,converters,inverters,motor control system.



DIM	mm MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage	800	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	10	V
I_C	Collector Current-Continuous	2	A
I_{CM}	Collector Current-Peak	3	A
I_B	Base Current	0.75	A
I_{BM}	Base Current-Peak	1	A
P_C	Collector Power Dissipation @T_C=25℃	40	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	2.5	℃/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	I_C= 50mA; I_B= 0	400			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 0.3A; I_B= 0.03A			0.8	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 1A; I_B= 0.2A			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 1A; I_B= 0.2A			1.1	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 800V; I_E= 0 V_{CB}= 800V; I_E= 0;T_C=125℃			0.2 1.5	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			1.0	mA
h_{FE-1}	DC Current Gain	I_C= 0.1A; V_{CE}= 5V	20		100	
h_{FE-2}	DC Current Gain	I_C= 0.5A; V_{CE}= 5V	15			
f_T	Current-Gain—Bandwidth Product	I_C= 0.2A; V_{CE}= 10V, f_{test}= 1MHz		20		MHz
Switching Times ;Resistive Load						
t_{on}	Turn-on Time	I_C= 1A;I_{B1}= 0.2A; I_{B2}= -0.4A; V_{CC}= 250V		0.2	0.5	μs
t_s	Storage Time			2.0	3.5	μs
t_f	Fall Time			0.4		μs

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