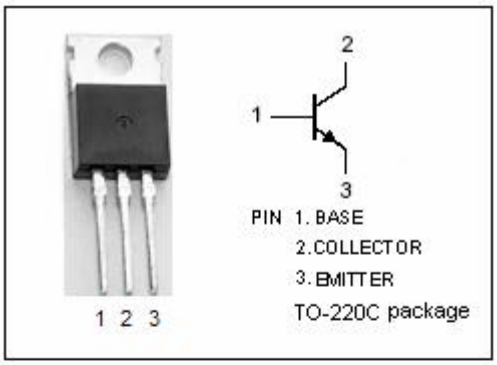
isc Silicon NPN Power Transistor — BUX77A

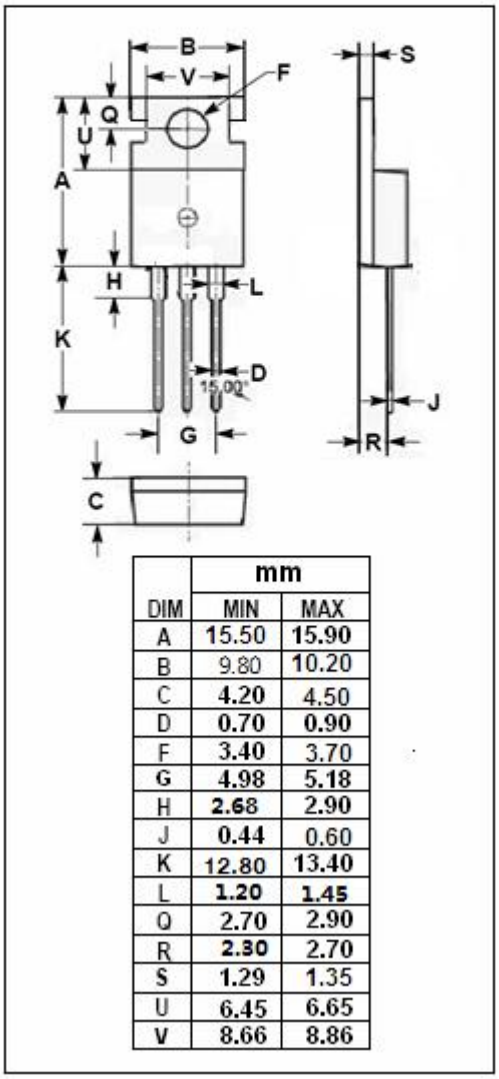
DESCRIPTION

- Contunuous Collector Current I_C= 8A
- Collector Power Dissipation-
  : P_C= 50W @T_C= 25℃
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 80V(Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for use in switching regulators and general purpose power amplifiers.



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_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	8	A
I_B	Base Current-Continuous	2	A
P_C	Collector Power Dissipation@T_C=25℃	50	W
T_J	Junction Temperature	200	℃
T_{stg}	Storage Temperature	-65~175	℃

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	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 50mA; I_B= 0	80		V
V_{CES}	Collector-Emitter Voltage	I_C= 2mA; V_{BE}= 0	100		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA; I_C= 0	6		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A		1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 5A; I_B= 0.5A		1.3	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 60V; I_B= 0		10	μA
I_{CBO}	Collector Cutoff Current	V_{CB}= 80V; I_E= 0 V_{CB}= 80V; I_E= 0, T_C=150℃		0.5 150	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 4V; I_C= 0		0.5	μA
h_{FE-1}	DC Current Gain	I_C= 0.5A; V_{CE}= 5V	70		
h_{FE-2}	DC Current Gain	I_C= 2A; V_{CE}= 5V	50		120
h_{FE-3}	DC Current Gain	I_C= 5A; V_{CE}= 5V	30		
h_{FE-4}	DC Current Gain	I_C= 1A; V_{CE}= 5V; T_C= -40℃	25		