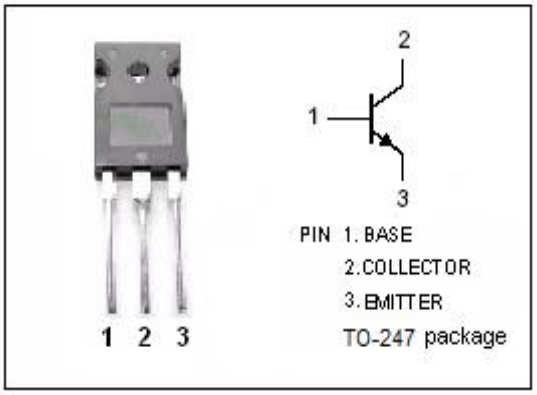
isc Silicon NPN Power Transistor — BU4525DW

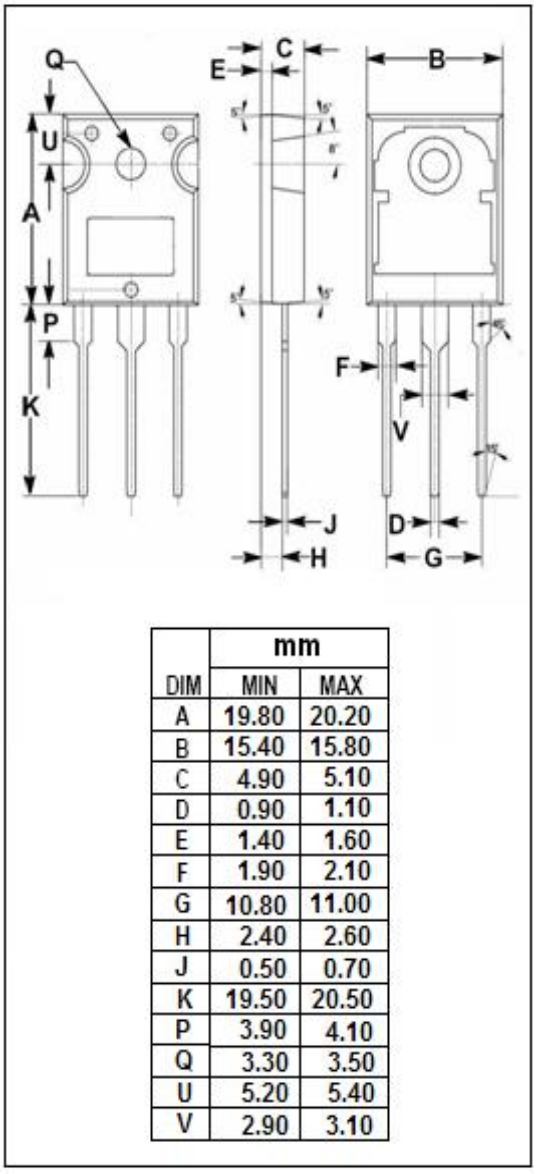


DESCRIPTION

- With TO-247 packaging
- Large collector current
- Low collector saturation voltage
- High power dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in DC-DC converter
- Driver of solenoid or motor
- For audio amplifier applications



DIM	mm MIN	mm MAX
A	19.80	20.20
B	15.40	15.80
C	4.90	5.10
D	0.90	1.10
E	1.40	1.60
F	1.90	2.10
G	10.80	11.00
H	2.40	2.60
J	0.50	0.70
K	19.50	20.50
P	3.90	4.10
Q	3.30	3.50
U	5.20	5.40
V	2.90	3.10

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	14	A
I_{CM}	Peak Collector Current	30	A
I_C	Base Current	8	A
P_C	Collector Power Dissipation@T_C=75℃	125	W
T_J	Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.0	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA; I_B= 0	800		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 50mA; I_E= 0	1500		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 10mA; I_C= 0	7		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 9A; I_B= 2.25A		3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 9A; I_B= 2.25A		1.06	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 800V; I_B=0		1.0	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 1500V; I_E=0		2.0	mA
h_{FE}	DC Current Gain	I_C= 9A; V_{CE}= 5V	4.2	7.6	