

**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**

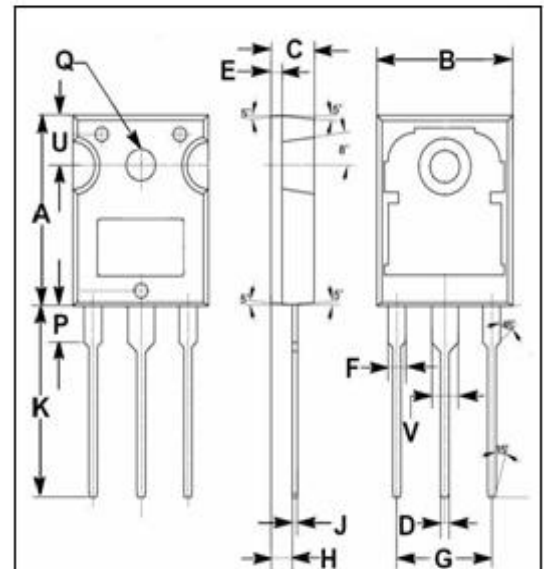
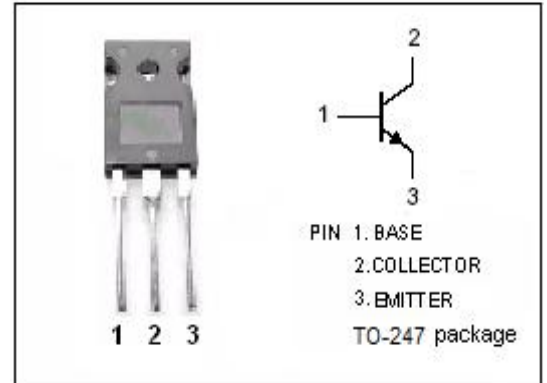
- Designed for use in DC-DC converter
- Driver of solenoid or motor
- For audio amplifier applications

**ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	1500	V
V <sub>CEO</sub>	Collector-Emitter Voltage	800	V
V <sub>EBO</sub>	Emitter-Base Voltage	7	V
I <sub>C</sub>	Collector Current-Continuous	14	A
I <sub>CM</sub>	Peak Collector Current	30	A
I <sub>C</sub>	Base Current	8	A
P <sub>C</sub>	Collector Power Dissipation@T <sub>C</sub> =75°C	125	W
T <sub>J</sub>	Junction Temperature	-55~150	°C
T <sub>stg</sub>	Storage Temperature	-55~150	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.0	°C/W



DIM	mm	
	MIN	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

## isc Silicon NPN Power Transistors

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## ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$  unless otherwise specified

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

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