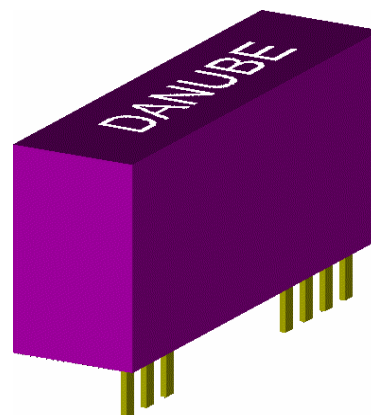


### FEATURES

- 1000VDC ISOLATION
- HIGH EFFICIENCY
- INTERNAL FILTERING
- LOW COST
- NO EXTERNAL COMPONENTS REQUIRED
- UP TO 1.8W UNREGULATED OUTPUT POWER
- DUAL IN LINE PACKAGE
- 100% BURNED IN
- LOW NOISE
- MTBF > 850,000 HOURS



#### ● OUTPUT SPECIFICATIONS

|                              |              |
|------------------------------|--------------|
| Voltage Setpoint Accuracy    | +/-2% max    |
| Temperature Coefficient      | +/-0.03%/°C  |
| Ripple & Noise (20MHz BW)    | 100mVp-p max |
| Line Regulation <sup>1</sup> | +/-1.2% max  |
| Load Regulation <sup>2</sup> | +/-8% max    |
| Short Circuit Protection     | Momentary    |

#### ● ENVIRONMENTAL SPECIFICATIONS

|                       |                     |
|-----------------------|---------------------|
| Operating Temperature | -25°C to +71°C      |
| Storage Temperature   | -55°C to +125°C     |
| Cooling               | Free-Air Convection |

ALL SPECIFICATIONS TYPICAL AT NOMINAL LINE, FULL LOAD , AND 25 °C UNLESS OTHERWISE NOTED.

#### ● INPUT SPECIFICATIONS

|                     |                |
|---------------------|----------------|
| Input Voltage Range | +/-10% max     |
| Input Filter        | Capacitor Type |

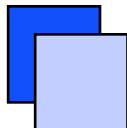
#### ● GENERAL SPECIFICATIONS

|                                |                          |
|--------------------------------|--------------------------|
| Efficiency                     | 77%-85%                  |
| Isolation Voltage <sup>3</sup> | 1000 VDC min             |
| Isolation Resistance           | 10 <sup>9</sup> ohms min |
| Switching Frequency            | 25 KHz min               |
| Isolation Capacitance          | 80pF max                 |
| MTBF                           | 850,000 Hours            |
| Weight                         | 10.1g Typ                |
| Case Material                  | Non-Conductive Plastic   |
| Case Size                      | 32.5mm*17mm*10.2mm       |

<sup>1</sup> Line Regulation is for a 1.0% change in input Voltage.

<sup>2</sup> Load Regulation is for output load current change from 20% to 100%.

<sup>3</sup> For 60 seconds



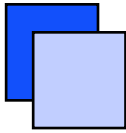
### ● SELECTION GUIDE 1.8W OUTPUT

| MODEL<br>NUMBER       | INPUT<br>VOLTAGE<br>(VDC) | OUTPUT<br>VOLTAGE<br>(VDC) | OUTPUT<br>CURRENT<br>(mA) | INPUT<br>CURRENT(mA) |            | EFF<br>(%) | ISOLATION<br>(VDC) |
|-----------------------|---------------------------|----------------------------|---------------------------|----------------------|------------|------------|--------------------|
|                       |                           |                            |                           | FULL<br>LOAD         | NO<br>LOAD |            |                    |
| HUS-0505              | 5                         | 5                          | 360                       | 467                  | 40         | 77         | 1000               |
| HUS-0509 <sup>4</sup> | 5                         | 9                          | 200                       | 476                  | 40         | 77         | 1000               |
| HUS-0512              | 5                         | 12                         | 150                       | 450                  | 38         | 80         | 1000               |
| HUS-0515              | 5                         | 15                         | 120                       | 444                  | 38         | 81         | 1000               |
| HUS-1205              | 12                        | 5                          | 360                       | 192                  | 18         | 78         | 1000               |
| HUS-1209 <sup>5</sup> | 12                        | 9                          | 200                       | 185                  | 18         | 81         | 1000               |
| HUS-1212              | 12                        | 12                         | 150                       | 185                  | 16         | 81         | 1000               |
| HUS-1215              | 12                        | 15                         | 120                       | 182                  | 16         | 82         | 1000               |
| HUS-2405              | 24                        | 5                          | 360                       | 95                   | 9          | 79         | 1000               |
| HUS-2409              | 24                        | 9                          | 200                       | 92                   | 9          | 82         | 1000               |
| HUS-2412              | 24                        | 12                         | 150                       | 90                   | 9          | 83         | 1000               |
| HUS-2415              | 24                        | 15                         | 120                       | 88                   | 8          | 85         | 1000               |
| HUS-4805              | 48                        | 5                          | 360                       | 48                   | 5          | 78         | 1000               |
| HUS-4809              | 48                        | 9                          | 200                       | 46                   | 5          | 81         | 1000               |
| HUS-4812              | 48                        | 12                         | 150                       | 46                   | 5          | 81         | 1000               |
| HUS-4815              | 48                        | 15                         | 120                       | 45                   | 5          | 82         | 1000               |

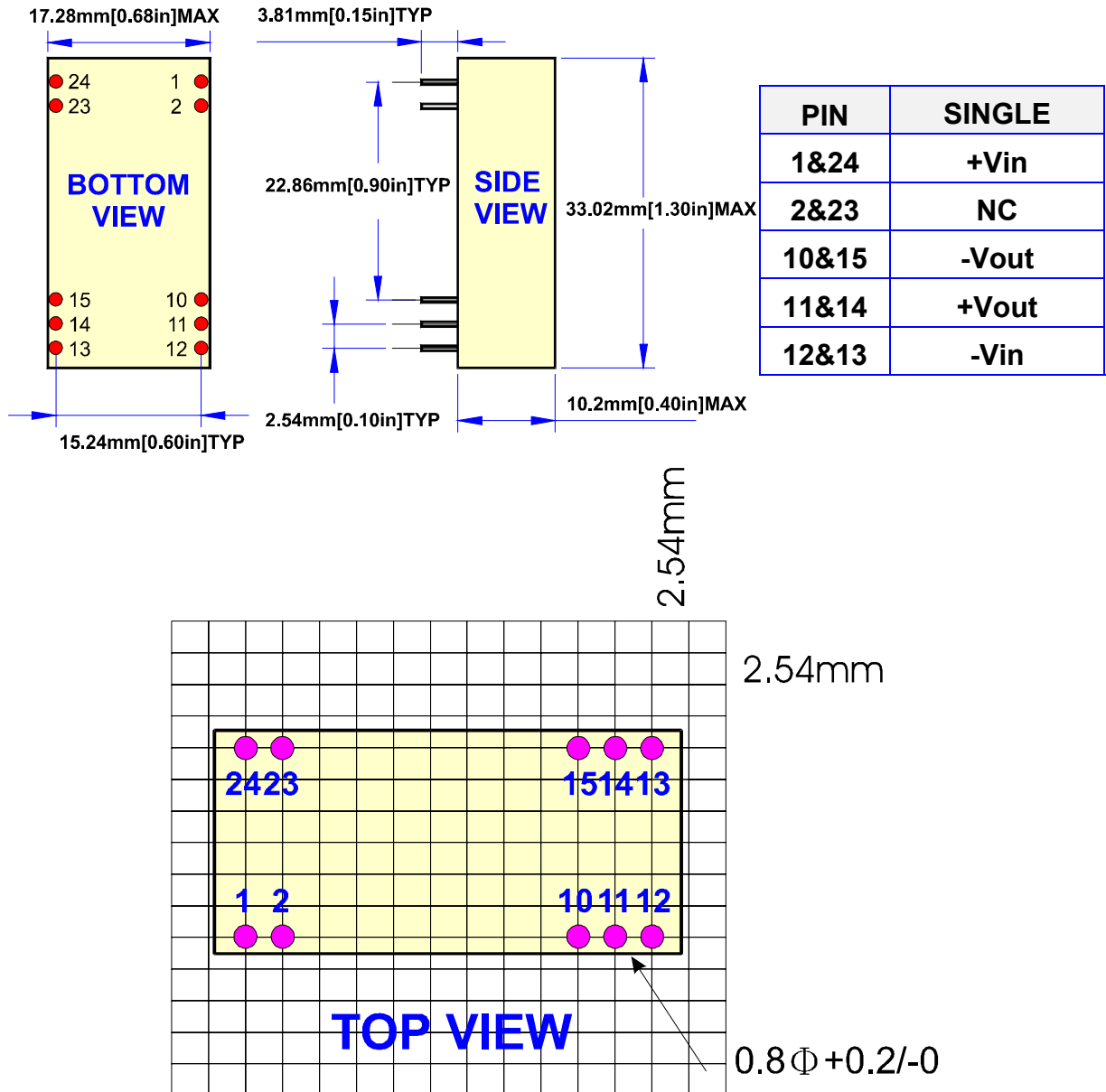
*Note: Other input to output voltages may be available. Please contact factory.*

<sup>4</sup>For LAN DC-DC CONVERTER

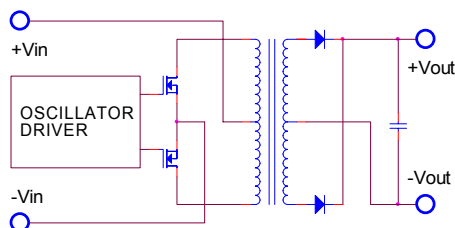
<sup>5</sup>For LAN DC-DC CONVERTER



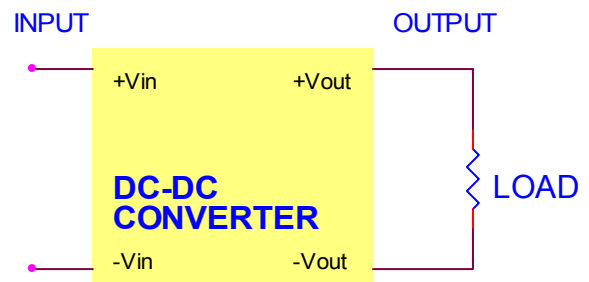
## MECHANICAL DIMENSIONS & RECOMMENDED FOOTPRINT DETAILS

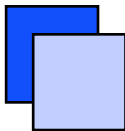


## SIMPLIFIED SCHEMATIC



## TYPICAL APPLICATIONS

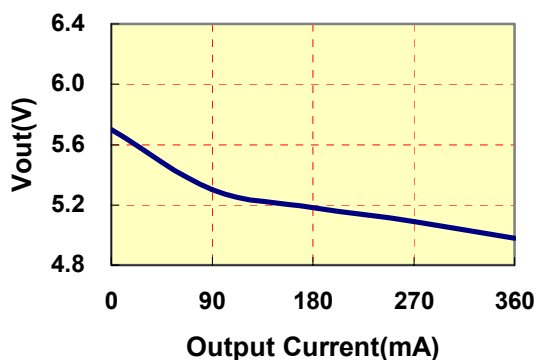




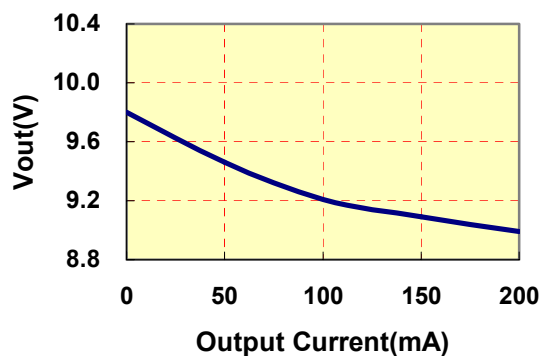
### ● TYPICAL PERFORMANCE CUREVES

Specifications typical at  $t_a=25^{\circ}\text{C}$ , nominal input voltage , rated output current unless otherwise specified.

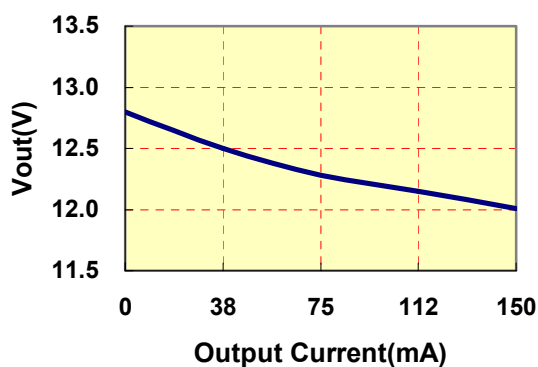
**VOUT VS LOAD(5Vout Models)**



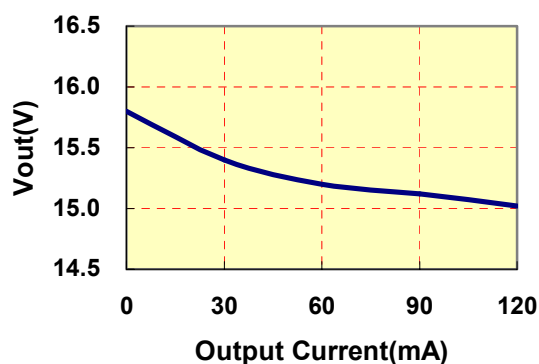
**VOUT VS LOAD(9Vout Models)**



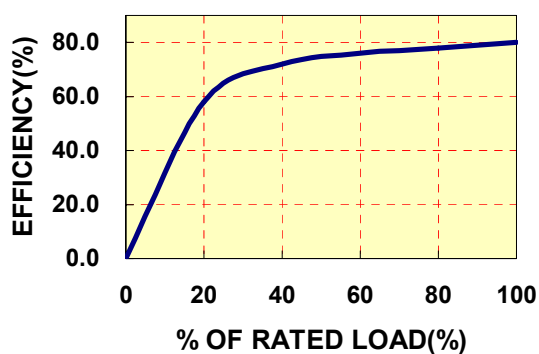
**VOUT VS LOAD(12Vout Models)**



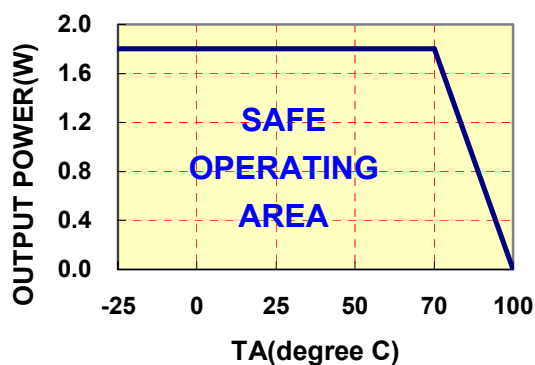
**VOUT VS LOAD(15Vout Models)**

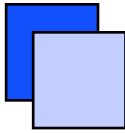


**EFFICIENCY VS LOAD**



**DERATING CURVE**





### **HU SERIES APPLICATION NOTES:**

#### **EXTERNAL CAPACITANCE REQUIREMENTS:**

*Output filtering is required for operation. A minimum of 10uF is needed. Output capacitance may be increased for additional filtering, not to exceed 220uF.*

*To meet the reflected ripple requirements of the converter, an input impedance of less than 0.5 ohm from DC to 250KHz is required.*

#### **Negative Outputs:**

*A negative output voltage may be obtained by connecting the +OUT to circuit ground and connecting –OUT as the negative output.*

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#### **FOR MORE INFORMATION CALL:**

##### ***Power Systems – The Power Solution***

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