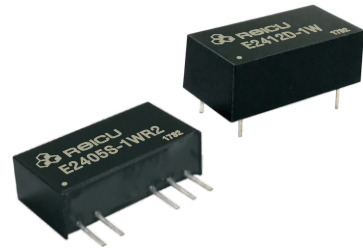


**Features**

- RoHS compliant
- Efficiency up to 81%
- 3kVDC Isolation
- Double output
- Short circuit protection( Suffix “R2” only SIP,optional)
- Industry standard required
- Wide temperature performance at full 1 Watt load,-40°C to 85°C



**Model Selection Guide**

| Order Code      | Vin(V)  |           | Output |        | Max capacitive Load | Efficiency(%) (Typ) |
|-----------------|---------|-----------|--------|--------|---------------------|---------------------|
|                 | Nominal | Range     | Vo(V)  | Io(mA) |                     |                     |
| E0505S/D-1W(R2) | 5       | 4.5-5.5   | +5     | ±100   | 100                 | 72                  |
| E0509S/D-1W(R2) |         |           | +9     | ±56    |                     |                     |
| E0512S/D-1W(R2) |         |           | +12    | ±42    |                     |                     |
| E0515S/D-1W(R2) |         |           | +15    | ±33    |                     |                     |
| E0524S/D-1W(R2) |         |           | +24    | ±21    |                     |                     |
| E1205S/D-1W(R2) | 12      | 10.8-13.2 | +5     | ±100   | 100                 | 73                  |
| E1209S/D-1W(R2) |         |           | +9     | ±56    |                     |                     |
| E1212S/D-1W(R2) |         |           | +12    | ±42    |                     |                     |
| E1215S/D-1W(R2) |         |           | +15    | ±33    |                     |                     |
| E1224S/D-1W(R2) |         |           | +24    | ±21    |                     |                     |
| E2405S/D-1W(R2) | 24      | 21.6-26.4 | +5     | ±100   | 100                 | 76                  |
| E2409S/D-1W(R2) |         |           | +9     | ±56    |                     |                     |
| E2412S/D-1W(R2) |         |           | +12    | ±42    |                     |                     |
| E2415S/D-1W(R2) |         |           | +15    | ±33    |                     |                     |
| E2424S/D-1W(R2) |         |           | +24    | ±21    |                     |                     |

\*All the specifications typical at Ta=+25°C resistive load, nominal input voltage and rated output current unless otherwise noted.

**Input Characteristics**

| Parameter                         | Condition         | Min                | Typ | Max | Units |
|-----------------------------------|-------------------|--------------------|-----|-----|-------|
| Input Surge Voltage (1 sec. Max.) | 3.3V Input Models | -0.7               | --  | 6   | VDC   |
|                                   | 5V Input Models   | -0.7               | --  | 9   |       |
|                                   | 12V Input Models  | -0.7               | --  | 18  |       |
|                                   | 24V Input Models  | -0.7               | --  | 30  |       |
| Input Filter                      | All Models        | Internal Capacitor |     |     |       |

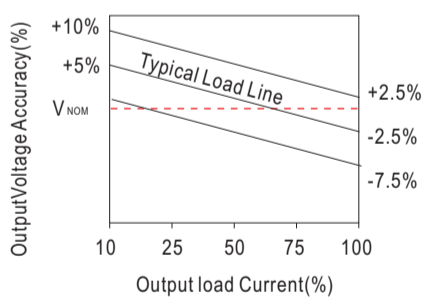
**Output Characteristics**

| Parameter                | Condition               | Min                            | Typ | Max  | Units |
|--------------------------|-------------------------|--------------------------------|-----|------|-------|
| Line regulation          | Vin change 1%           | ±1.2                           | --  | ±1.5 | %     |
| Switching frequency      | Full load,nominal input | --                             | 100 | --   | KHz   |
| Load regulation          | 10%~100% load           | 6.5                            | --  | 15   | %     |
| Ripple and noise         | BW=DC to 20MHz          | --                             | 75  | ≤100 | mVp-p |
| Short circuit Protection | Suffix “R2”             | Continuous, Automatic Recovery |     |      |       |

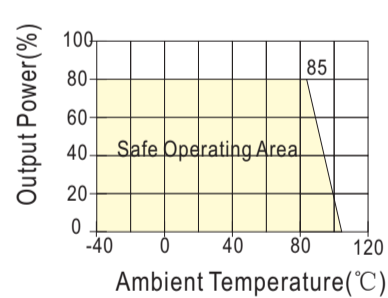
**General Characteristics**

| Parameter             | Condition           | Min  | Typ  | Max  | Units   |
|-----------------------|---------------------|------|------|------|---------|
| Operating Temperature | All output types    | -40  | --   | +85  | °C      |
| Storage               |                     | -55  | --   | +125 | °C      |
| Storage humidity      |                     | --   | --   | +95  | %       |
| Cooling               | Free air convection | --   | --   | --   |         |
| Isolation voltage     | 1mA≤1minute         | --   | 3000 | --   | VDC     |
| Isolation resistance  | 500VDC              | 1000 | --   | --   | MΩ      |
| Switching Frequency   |                     | --   | 100  | --   | KHz     |
| MTBF                  | 3.5×10 <sup>6</sup> |      |      |      | K hours |

**Tolerance Envelopes Curve**

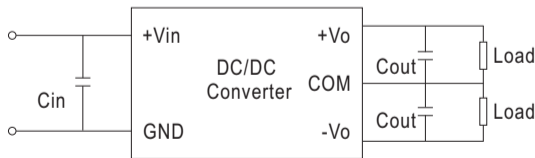


**Temperature Derating Graph Curve**



**Input/Output Ripple Reduction**

Reduce output ripple, it is recommended to use capacitors at the input/output.



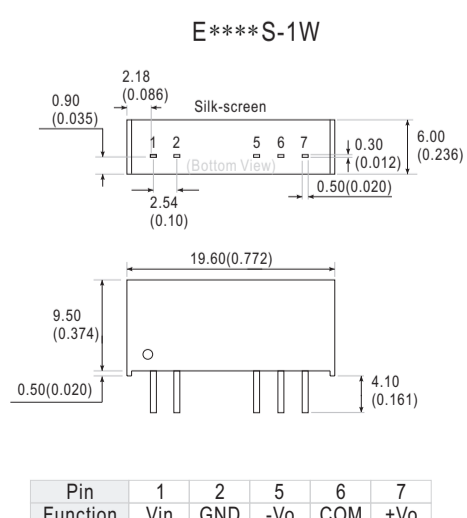
**External Capacitor Table**

| Parameter | 5   | 12  | 15  | 24 |      |
|-----------|-----|-----|-----|----|------|
| Vin(VDC)  | 5   | 12  | 15  | 24 |      |
| Cin(uF)   | 4.7 | 2.2 | 2.2 | 1  |      |
| Vout(VDC) | 5   | 9   | 12  | 15 | 24   |
| Cout(uF)  | 10  | 4.7 | 2.2 | 1  | 0.47 |

**Note**

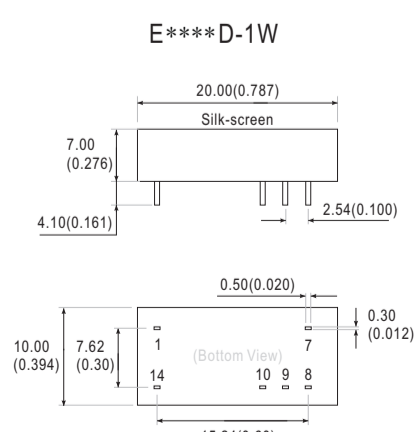
1. To ensure this module can operate efficiently and reliably, During operation, the minimum output load is not less than 10% of the full load.
2. Other input and output voltage may be available, please
3. Specifications subject to change without notice

**Mechanical Dimension & Pin Connections**



| Pin      | 1   | 2   | 5   | 6   | 7   |
|----------|-----|-----|-----|-----|-----|
| Function | Vin | GND | -Vo | COM | +Vo |

Note:  
Unit:mm(inch)



| Pin      | 1   | 7  | 8   | 9   | 10  | 14  |
|----------|-----|----|-----|-----|-----|-----|
| Function | GND | NC | +Vo | COM | -Vo | Vin |