

**Features**

1WATT SMD PACKAGE  
 EFFICIENCY TO 80%  
 100% BURNED IN  
 UL 94V-0 PACKAGE MATERIAL  
 CUSTOM SOLUTIONS AVAILABLE  
 UNREGULATED OUTPUT TYPES

**Input Specifications**

Input Voltage :5Vdc  
 Input Voltage Range : $\pm 10\%$

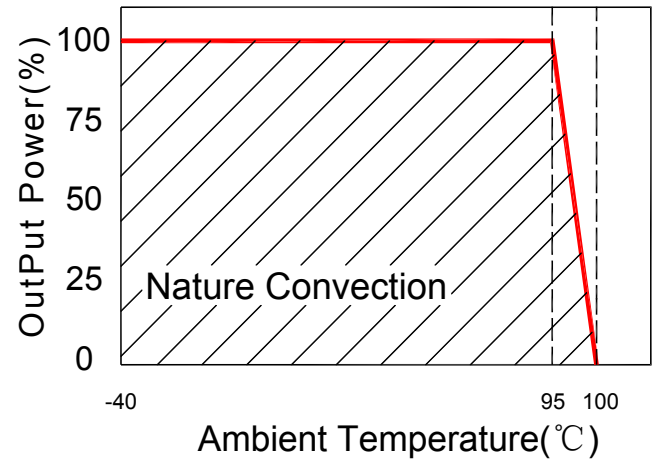
**Output Specifications**

Output Voltage :5Vdc  
 Output Voltage Accuracy : $\pm 5\%$  Vout=4.75-5.25Vdc Vin=5Vdc  
 Output Current :200mA  
 Efficiency :80% TYP  
 Ripple / Noise : 60mVp-p TYP, 100mVp-p MAX 20MHz Bandwidth  
 Short Circuit Protection :Continuous  
 Line Regulation : $\pm 1.2\%$  TYP For 1.0% OF Vin  
 Load Regulation : $\pm 15\%$  MAX 10% to 100% full load

**General Specifications**

Operating Temperature Range :-40°C ~ +100°C  
 Storage Temperature :-55°C ~ +125°C  
 Switching Frequency :100KHz TYP  
 Humidity :95% MAX  
 Isolation Voltage :1500Vdc Input to Output ( 2sec/0.5mA )  
 Isolation Resistance :1000M $\Omega$  MIN 500Vdc  
 Cooling :Free air convection  
 MTBF :>3500000 Hours MIL-HDBK-217F 25°C, Ground Benign.  
 Case Material :DAP  
 Weight :1.2g TYP

Temperature Derating Graph

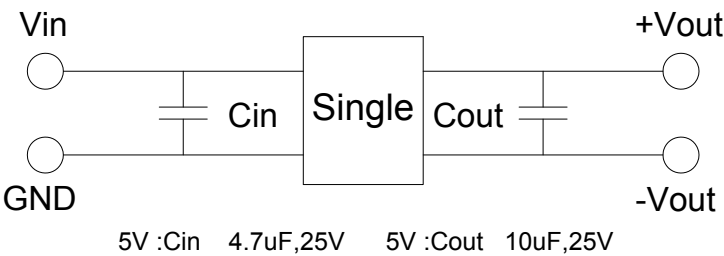


Part Number

AS1 A - 05 S 05 O C  
1 2 3 4 5 6 7

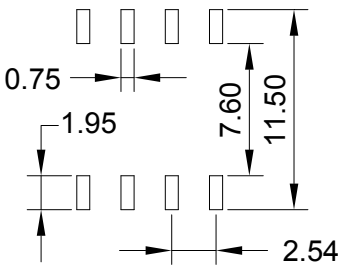
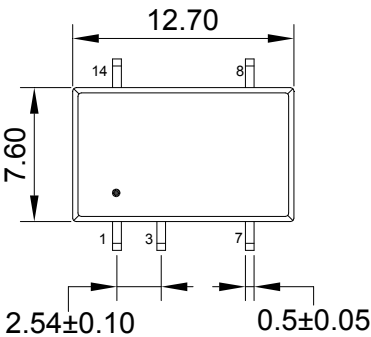
- 1:Series
- 2:Operating Temperature Range -40°C ~ +100°C
- 3:Input Voltage
- 4:Single Output
- 5:Output voltage
- 6:Case
- 7:Continuous Short Circuit Protection

Recommended Test Circuit

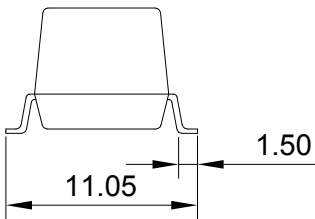
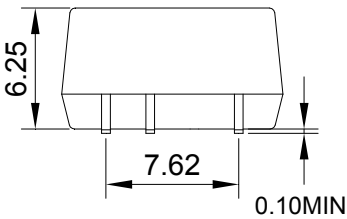


To make sure the product work at perfect operation status with full loading external capacitor is necessary and it is recommended to use high frequency low resistance electrolytic capacitor.

Outline Dimensions



SUGGESTED PAD LAYOUT



UNIT:mm Unless otherwise specified,all tolerances are ±0.25

| PIN    | 1    | 3    | 7     | 8     | 14 |
|--------|------|------|-------|-------|----|
| Single | -Vin | +Vin | -Vout | +Vout | NC |

Our RoHS parts just can withstand IR Reflow peak temperature: 240degC MAX as the following profile:

| Profile Feature                                                                                                                 | Pb-Free Assembly                 |
|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| Average Ramp-Up Rate<br>( $T_{s_{max}}$ to $T_p$ )                                                                              | 3°C /second max.                 |
| Preheat<br>-Temperature Min ( $T_{s_{min}}$ )<br>-Temperature Max ( $T_{s_{max}}$ )<br>-Time ( $t_{s_{min}}$ to $t_{s_{max}}$ ) | 150°C<br>200°C<br>60-180 seconds |
| <b>Time maintained above:</b><br>-Temperature ( $T_L$ )<br>-Time ( $t_L$ )                                                      | 217°C<br>60-150 seconds          |
| Peak/Classification Temperature ( $T_p$ )                                                                                       | 240°C MAX                        |
| Time within 5°C of actual Peak Temperature ( $t_p$ )                                                                            | 20-40 seconds                    |
| Ramp-Down Rate                                                                                                                  | 6°C/seconds max                  |
| Time 25°C to Peak Temperature                                                                                                   | 6 minutes max.                   |

