

TECHNICAL DATA  
DATA SHEET 1115, REV. -

## DC-DC Converters

Fixed Input, 1000V Isolation, Unregulated, Dual-Independent Output

### FEATURES:

- Isolation Voltage: 1000Vdc
- Isolation Resistance (1): 1000MW
- Short-Circuit Duration: 1 second
- Case Temperature Rise: Max. 25° C, Typ. 15° C
- Cooling Method: Free-Air Cooling
- Standby Power Dissipation: 1W (100mW), 2W (200mW)
- Operating Temp.: -40° C ~ + 85° C
- Storage Temp.: -55° C ~ + 125° C
- Humidity: £ 95%
- Soldering Temp. (2): 300° C
- Case Material: Non-Flammable Material (UL94-V0)
- Mean Time Before Failure: > 1,000,000 hours (Operating Temp. 25° C)

### M Dual-Independent Output-1W/2W Series Input Characteristics

Part Number	Nominal Input Voltage	Input Voltage Range	Maximum Input Voltage*
M05XXXXKS/D1/2U	5Vdc	4.5~5.5Vdc	7Vdc
M12XXXXKS/D1/2U	12Vdc	10.8~13.2Vdc	15Vdc
M24XXXXKS/D1/2U	24Vdc	21.6~26.4Vdc	28Vdc

\* Voltage above this value may cause permanent damage to the device.

### M Dual-Independent Output-1W/2W Series Output Characteristics

Parameter	MIN	TYP	MAX	Units
1W Output Power	0.25		1	W
2W Output Power	0.5		2	W
Line Regulation			1.2	
Efficiency at 100% Load	65	75	85	%
Temperature Coefficient			0.03	%/°C
1W Ripple and Noise		75	150	mVp-p
2W Ripple and Noise		100	200	
Switching Frequency	80	100	200	kHz

1. All specifications at TA=25°C, 75% of the humidity, Nominal input voltage, full output load unless otherwise specified. Including both in between Vin & Vout and Vout1 & Vout2.
2. Soldering for 10 seconds at 1.5mm away from the edge.

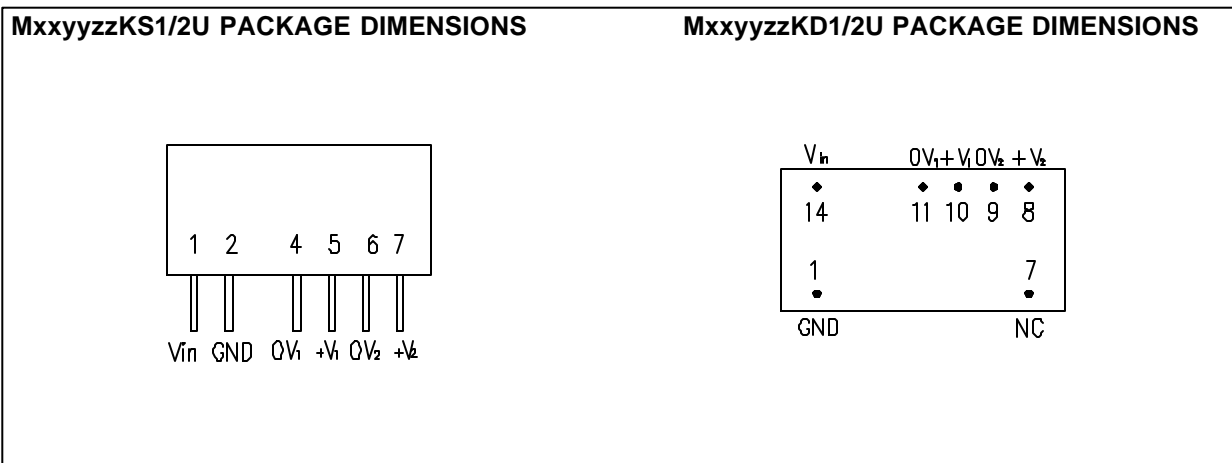
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**M Dual-Independent Output-1W/2W Series Part Number List**

Input	Output	Power	SIP-1W	SIP-2W	DIP-1W	DIP-2W
5Vdc	5V/100m A	1.00W	M050505KS1U	M050505KS2U	M050505KD1U	M050505KD2U
	9V/56m A	1.00W	M050909KS1U	M050909KS2U	M050909KD1U	M050909KD2U
	12V/42m A	1.00W	M051212KS1U	M051212KS2U	M051212KD1U	M051212KD2U
	15V/33m A	1.00W	M051515KS1U	M051515KS2U	M051515KD1U	M051515KD2U
12Vdc	5V/200m A	2.00W	M120505KS1U	M120505KS2U	M120505KD1U	M120505KD2U
	9V/111m A	2.00W	M120909KS1U	M120909KS2U	M120909KD1U	M120909KD2U
	12V/84m A	2.00W	M121212KS1U	M121212KS2U	M121212KD1U	M121212KD2U
	15V/67m A	2.00W	M121515KS1U	M121515KS2U	M121515KD1U	M121515KD2U
24Vdc	5V/200m A	2.00W	M240505KS1U	M240505KS2U	M240505KD1U	M240505KD2U
	9V/111m A	2.00W	M240909KS1U	M240909KS2U	M240909KD1U	M240909KD2U
	12V/84m A	2.00W	M241212KS1U	M241212KS2U	M241212KD1U	M241212KD2U
	15V/67m A	2.00W	M241515KS1U	M241515KS2U	M241515KD1U	M241515KD2U

\* The voltage of Vout1 can be different with Vout2, for example: M050512KS1U, Vout1=5V, Vout2=12V. M051205KS1U, Vout1=12V, Vout2=5V.

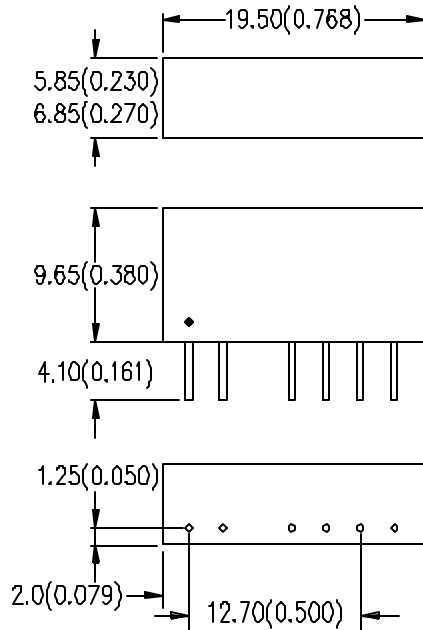
**PIN CONFIGURATION**



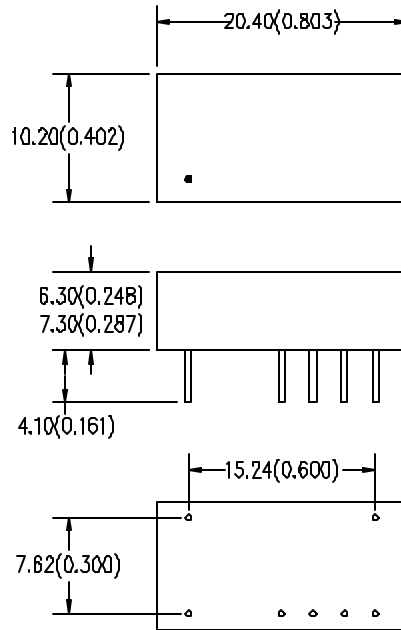
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**Mechanical Dimension: in inches / (mm)**

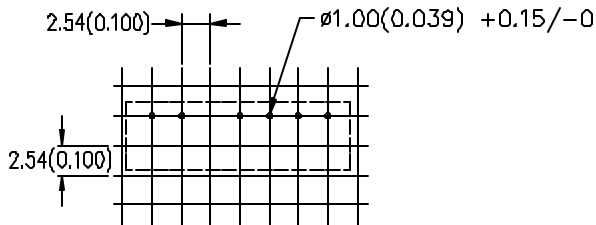
**MxxyyzzKS1/2U PACKAGE DIMENTIONS**



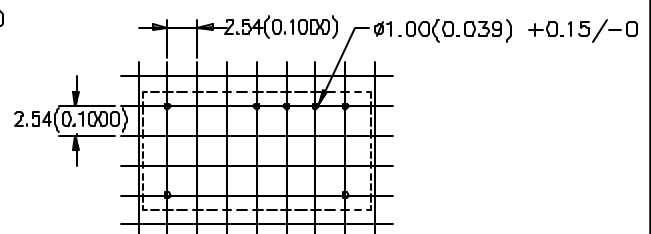
**MxxyyzzKD1/2U PACKAGE DIMENTIONS**



**DIMENSIONAL RECOMMENDATIONS FOR PCB LAYOUT**



**SIP PACKAGE DIMENSIONS**



**DIP PACKAGE DIMENSIONS**

**TECHNICAL DATA**

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