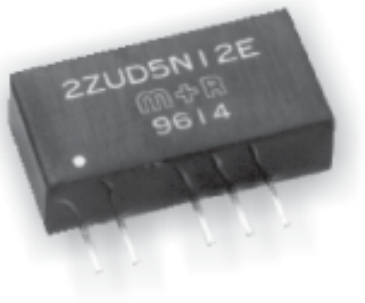
2 Watt 7 Pin SIL Package Z

- **Ultra-Miniature Size**
- **Unregulated Output**
- **1000VDC I/O-Isolation**
- **2000VDC I/O-Isolation Option (add Suffix "H2")**

  3000VDC I/O-Isolation Option (add Suffix "H3") meets EN 60950

  4000VDC I/O-Isolation Option (add Suffix "H4") meets EN 60950



MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	%EFF
2ZUS5N3.3E	5 VDC	3.3 VDC	606 mA	75
2ZUS5N5E		5 VDC	400 mA	75
2ZUS5N9E		9 VDC	222 mA	78
2ZUS5N12E		12 VDC	166 mA	78
2ZUS5N15E		15 VDC	133 mA	80
2ZUS5N24E		24 VDC	83 mA	80
2ZUD5N3.3E		±3.3 VDC	±303 mA	75
2ZUD5N5E		±5 VDC	±200 mA	75
2ZUD5N9E		±9 VDC	±111 mA	78
2ZUD5N12E		±12 VDC	±83 mA	78
2ZUD5N15E		±15 VDC	±66 mA	80
2ZUD5N24E		±24 VDC	±42 mA	80
2ZUS9N3.3E	9 VDC	3.3 VDC	606 mA	75
2ZUS9N5E		5 VDC	400 mA	75
2ZUS9N9E		9 VDC	222 mA	78
2ZUS9N12E		12 VDC	166 mA	78
2ZUS9N15E		15 VDC	133 mA	80
2ZUS9N24E		24 VDC	83 mA	80
2ZUD9N3.3E		±3.3 VDC	±303 mA	75
2ZUD9N5E		±5 VDC	±200 mA	75
2ZUD9N9E		±9 VDC	±111 mA	78
2ZUD9N12E		±12 VDC	±83 mA	78
2ZUD9N15E		±15 VDC	±66 mA	80
2ZUD9N24E		±24 VDC	±42 mA	80

SPECIFICATIONS

All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	%EFF
2ZUS12N3.3E	12VDC	3.3 VDC	606 mA	75
2ZUS12N5E		5 VDC	400 mA	75
2ZUS12N9E		9 VDC	222 mA	78
2ZUS12N12E		12 VDC	166 mA	78
2ZUS12N15E		15 VDC	133 mA	80
2ZUS12N24E		24 VDC	83 mA	80
2ZUD12N3.3E		±3.3 VDC	±303 mA	75
2ZUD12N5E		±5 VDC	±200 mA	75
2ZUD12N9E		±9 VDC	±111 mA	78
2ZUD12N12E		±12 VDC	±83 mA	78
2ZUD12N15E		±15 VDC	±66 mA	80
2ZUD12N24E		±24 VDC	±42 mA	80
2ZUS15N3.3E	15VDC	3.3 VDC	606 mA	75
2ZUS15N5E		5 VDC	400 mA	75
2ZUS15N9E		9 VDC	222 mA	78
2ZUS15N12E		12 VDC	166 mA	78
2ZUS15N15E		15 VDC	133 mA	80
2ZUS15N24E		24 VDC	83 mA	80
2ZUD15N3.3E		±3.3 VDC	±303 mA	75
2ZUD15N5E		±5 VDC	±200 mA	75
2ZUD15N9E		±9 VDC	±111 mA	78
2ZUD15N12E		±12 VDC	±83 mA	78
2ZUD15N15E		±15 VDC	±66 mA	80
2ZUD15N24E		±24 VDC	±42 mA	80
2ZUS24N3.3E	24VDC	3.3 VDC	606 mA	75
2ZUS24N5E		5 VDC	400 mA	75
2ZUS24N9E		9 VDC	222 mA	78
2ZUS24N12E		12 VDC	166 mA	78
2ZUS24N15E		15 VDC	133 mA	80
2ZUS24N24E		24 VDC	83 mA	80
2ZUD24N3.3E		±3.3 VDC	±303 mA	75
2ZUD24N5E		±5 VDC	±200 mA	75
2ZUD24N9E		±9 VDC	±111 mA	78
2ZUD24N12E		±12 VDC	±83 mA	78
2ZUD24N15E		±15 VDC	±66 mA	80
2ZUD24N24E		±24 VDC	±42 mA	80

SPECIFICATIONS

All Specifications Typical At Nominal Line, Full Load, and 25°C Unless Otherwise Noted

INPUT SPECIFICATIONS	
Input Voltage Range	±10%
Input Filter	Capacitor Type

OUTPUT SPECIFICATIONS		
Voltage Accuracy		±5%
Voltage Balance		±2%
Temperature Coefficient		0.03% per °C
Ripple and Noise, 20MHz BW		150 mV p-p max.
Short Circuit Protection		1 sec.
Line Regulation		1.2%/1% of Vin
Load Regulation	3.3V, 5V 9V, 12V, 15V, 24V	±15% max. ±10% max.

GENERAL SPECIFICATION		
Efficiency		see table
Isolation Voltage Suffix "H2" Suffix "H3" Suffix "H4"		1000 VDC min. 2000 VDC min. 3000 VDC min. 4000 VDC min.
Isolation Capacitance	Single Dual	45 pF 58 pF
Isolation Resistance	Standard, Suffix "H2", "H3", Suffix "H4"	10 Gohms min. 15 Gohms min.
Switching Frequency		20 kHz min.
Operating Temperature Range		-40°C to +85°C
Storage Temperature Range		-55°C to +125°C
Derating		see diagram
Safety Standards @ Suffix -H3, -H4		EN 60950
Weight		2.8 grams
Case Material		Non-Conductive Black Plastic
Case Dimensions		19.65x7.05x10.2 mm
MTBF (MIL-HDBK-217F)	at 25°C at 85°C	988000 hrs 135000 hrs

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SPECIFICATIONS

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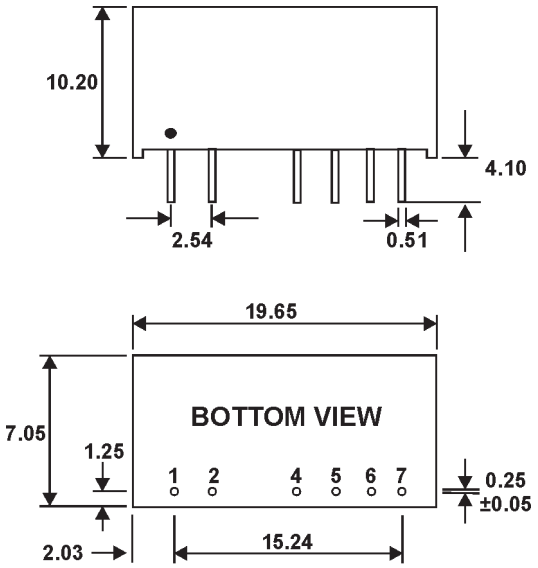
MECHANICAL SPECIFICATIONS

CASE "Z"



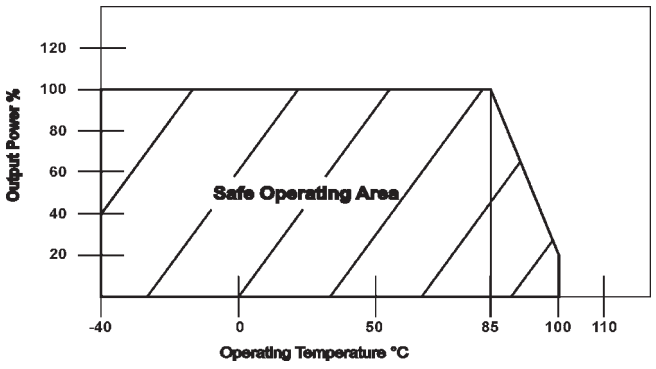
All Dimensions in mm.
Tolerances: ±0.25 mm

PIN CONNECTIONS			
	1000/2000VDC Single	**1000/2000VDC Dual**	**3000/4000VDC**
1	+INPUT	+INPUT	+INPUT
2	-INPUT	-INPUT	-INPUT
4	NC	-OUTPUT	NO PIN
5	-OUTPUT	COMMON	-OUTPUT
6	+OUTPUT	+OUTPUT	COMMON*
7	NO PIN	NO PIN	+OUTPUT

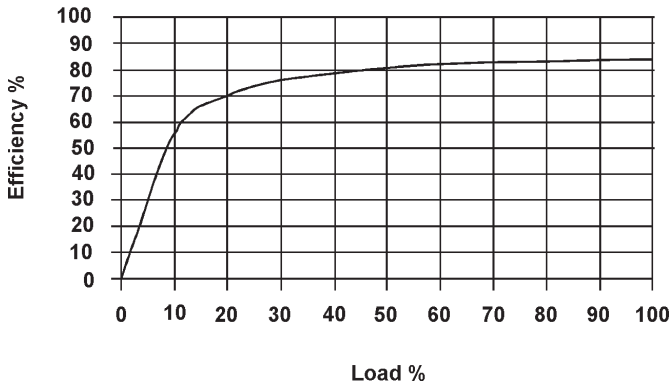
*No Pin at Single Output

DIAGRAMS

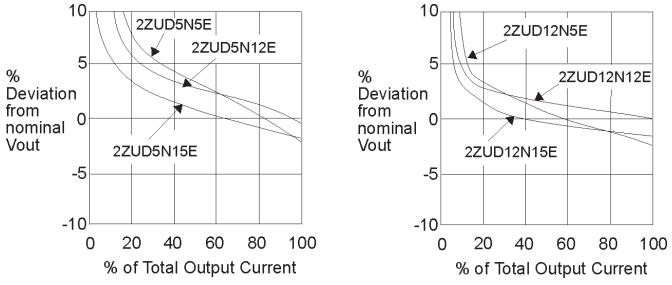
Derating



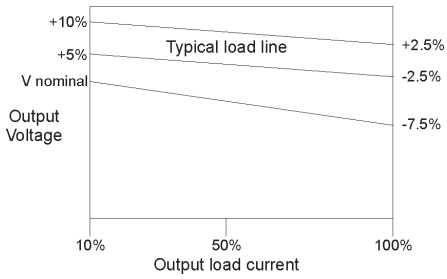
Efficiency - Load - Diagram 2ZUD5N5E



Load Regulation



Line Regulation



NOTICE:
The information in this document has been carefully checked. However, no responsibility is assumed for inaccuracies! Specifications can be changed without notice. The latest and most complete information can be found on our website.

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