

**ADR-5 Series, 5Watt**
**FEATURES:**

- ✓ Universal AC input range
- ✓ Typical Efficiency up to 80%
- ✓ Short circuit, over current and over voltage protections
- ✓ Board in-line type installation
- ✓ High voltage isolation 3000Vac
- ✓ 100% burn-in test
- ✓ 3 year warranty



Model	Input voltage (Vac)	Output voltage (Vdc)	Output current (mA)	Efficiency Typ.
ADR5-3	85-264	3.3	1500	74%
ADR5-5		5	1000	80%
ADR5-9		9	550	82%
ADR5-12		12	410	82%
ADR5-15		15	330	84%
ADR5-24		24	210	83%

**ELECTRICAL**
**Input**

Parameters	Symbols	Test Conditions / Comment	Min.	Typ.	Max.	Units
Input voltage	$V_{in}$	--	85	--	264	Vac
Input frequency	$F_{line}$	--	47	--	63	Hz
Input current	$I_{in}$	Full load, $V_{in}=115Vac$	--	200	--	mA
		Full load, $V_{in}=230Vac$	--	100	--	mA
Inrush current	$I_{inrush}$	Cold start, $V_{in}=230Vac$	--	40	--	A
Efficiency	$\eta$	Full voltage, full load	--	80	--	%

**Output**

Output voltage accuracy	--	$V_{in}=100-240Vac$	--	1	--	%
Line regulation	$V_{out-line}$	$V_{in}$ from 100Vac to 240Vac	--	2	--	%

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**ELECTRICAL**
**Output**

Parameters	Symbols	Test Conditions / Comment	Min.	Typ.	Max.	Units
Load regulation	$V_{out-load}$	20%-100% load	--	3	--	%
Set-up rise time	--	Full load, $V_{in}=230Vac$	--	25	--	ms
Switching frequency	--	--	60	--	100	KHz
Hold-up time	--	Full load, $V_{in}=115Vac$	--	8	--	ms
		Full load, $V_{in}=230Vac$	--	40	--	ms
Ripple	$V_{ripple}$	--	--	60	--	mV

**Protection**

Overload	Typ.125-190%
Overvoltage	Typ.125-190%

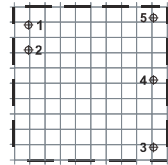
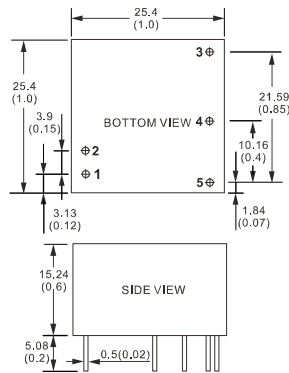
**Environment**

Storage	$T_{storage}$	Humidity: 5% RH to 95% RH	-40	--	+85	°C
Ambient operating temperature	$T_a$	Startup at rated voltage (Please refer to derating curve)	-25	--	+70	°C
Operating relative humidity	$H_a$	Non condensing	10	--	90	%
MTBF	$T_{MTBF}$	Full load, 230Vac input, 25°C ambient temperature	450	--	--	kHrs
Dimension(LxWxH)	25.4 x 25.4 x 15.24mm					

**Safety**

Safety standards	EN609501-1, EN60950-1
Withstand voltage	I/P-O/P: 3KVac
Insulation Resistance	I/P-O/P: > 100M Ohms/500VDC/25°C/70%RH
EMI / RFI conducted	EN55022, Level B conducted & radiated

**Notes: Unless otherwise specified, all the above parameters are measured at ambient temperature of 25°C and input nominal voltage.**

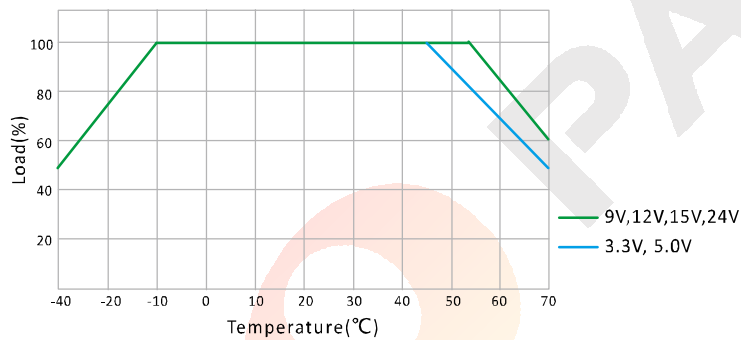
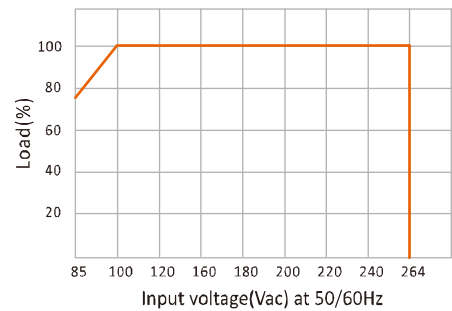
**ADR-5 Series, 5Watt**
**MECHANICAL**


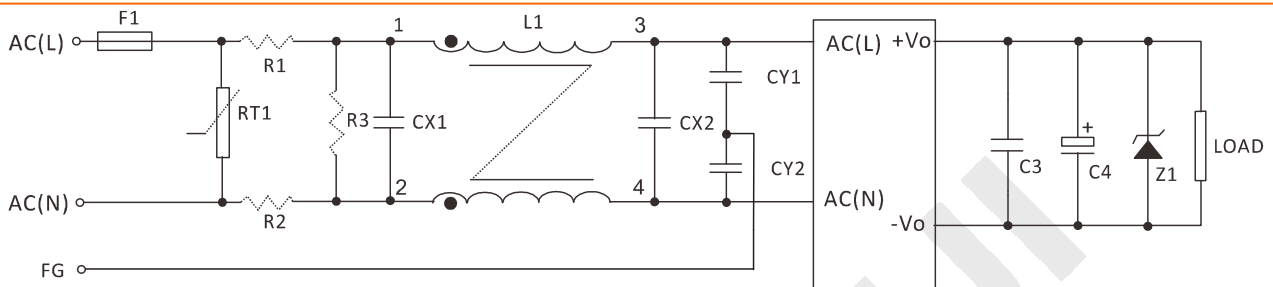
Unit: mm(inch)  
PCB vertical view  
Grid spacing: 2.54mm(0.1inch)

**CONNECTION**

PIN #	SINGLE
1	AC(N)
2	AC(L)
3	NC
4	-Vo
5	+Vo

Note: Unit is mm(inch).

**ELECTRICAL CURVE**
**DERATING CURVE**

**STATIC CHARACTERISTIC CURVE**


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**NOTE**
**RECOMMENDED TEST AND APPLICATION CIRCUIT**

**EMC RECOMMENDED APPLICATION CIRCUIT**

	3.3VDC	5VDC	9VDC	12VDC	15VDC	24VDC
F1			T1A/250V			
RT1			7D471K			
R1, R2			2Ω/3W			
R3			1MΩ/2W			
L1			L=3-10mH, I=0.2-0.5A			
CX1, CX2			0.15-1μF/300Vac			
CY1, CY2			102K/400Vac			
C3			1μF/50V			
C4	470uF/16V	470uF/16V	150uF/25V	120uF/25V	120uF/25V	100uF/35V
Z1	P6KE6.8A	P6KE6.8A	P6KE16A	P6KE16A	P6KE20A	P6KE33A