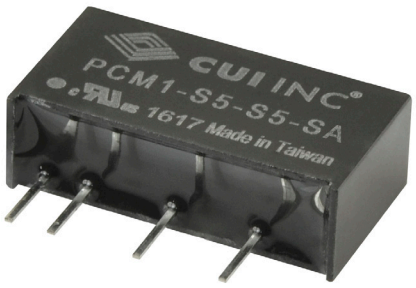
SERIES: PCM1-SA | **DESCRIPTION:** DC-DC CONVERTER

FEATURES

- up to 1 W isolated output
- industry standard SIP 7 package
- 1:1 input range
- single unregulated output
- 1,000 Vdc isolation voltage
- -40 to 85°C temperature range
- efficiency up to 76%
- UL/cUL certified

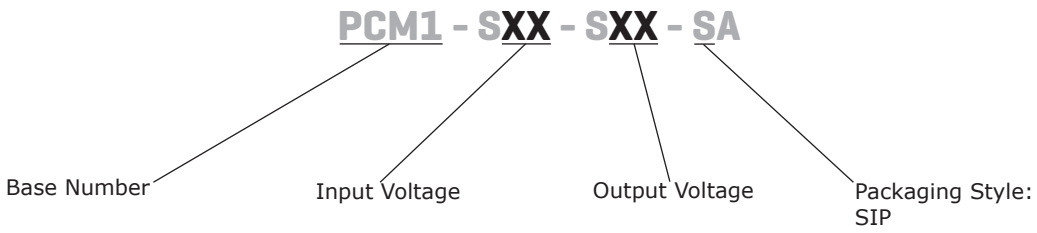


MODEL

MODEL	input voltage typ (Vdc)	input voltage range (Vdc)	output voltage (Vdc)	output current max (mA)	output power max (W)	ripple & noise[1] max (mVp-p)	efficiency typ (%)
PCM1-S5-S5-SA	5	4.5~5.5	5	200	1	100	76

Notes: 1. At full load, nominal input, 20 MHz bandwidth oscilloscope, output terminated with a 0.1 µF multilayer low ESR ceramic capacitor.
2. All specifications measured at Ta=25°C, nominal input voltage, rated output load, and after warm up unless otherwise specified.

PART NUMBER KEY



Please read our datasheet & drawing disclaimer here.

INPUT

parameter	conditions/description	min	typ	max	units
operating input voltage		4.5	5	5.5	Vdc

OUTPUT

parameter	conditions/description	min	typ	max	units
maximum capacitive load[1]				1000	µF
voltage accuracy	at full load, Vin nominal, see tolerance envelope curves			±5	%
line regulation	measured from low to high line, full load		±1.2		%
load regulation	measured from 20~100% load			±10	%
switching frequency	at Vin nominal	50	82	105	kHz

Note: 1. Maximum capacitive load is tested at nominal input voltage and full load.

SAFETY AND COMPLIANCE

parameter	conditions/description	min	typ	max	units
isolation voltage	input to output for 1 second	1,000			Vdc
isolation resistance	at 500 Vdc	1,000			MΩ
isolation capacitance				75	pF
safety approvals	UL/cUL (60950-1, 2nd Edition)				
MTBF	as per MIL-HDBK-217F, full load, 25°C as per MIL-HDBK-217F, full load, 85°C	2,400,000 650,000			hours hours
RoHS	yes				

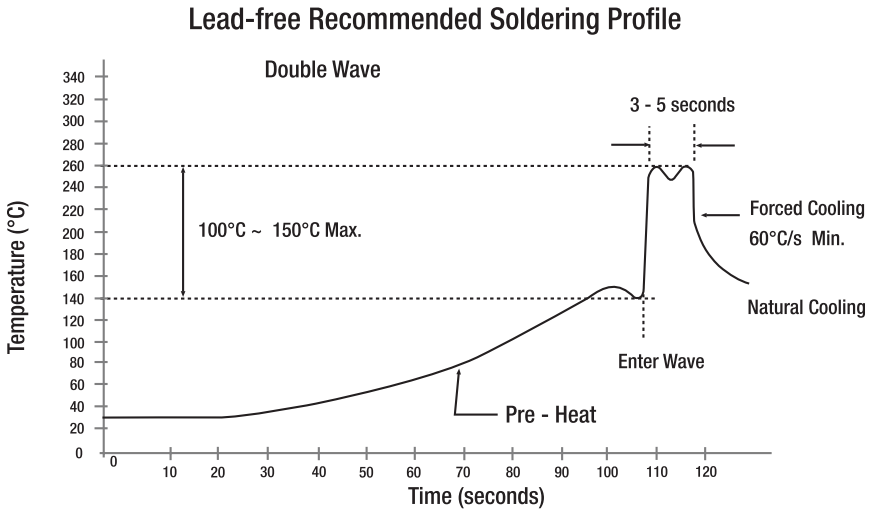
ENVIRONMENTAL

parameter	conditions/description	min	typ	max	units
operating temperature		-40		85	°C
storage temperature		-55		125	°C
operating humidity	non-condensing			95	%

SOLDERABILITY

parameter	conditions/description	min	typ	max	units
wave soldering	see wave solder profile			260	°C

Note: 2. The wave solder profile is measured on lead temperature.
3. Need to keep the solder parts internal temperature less than about 210°C.



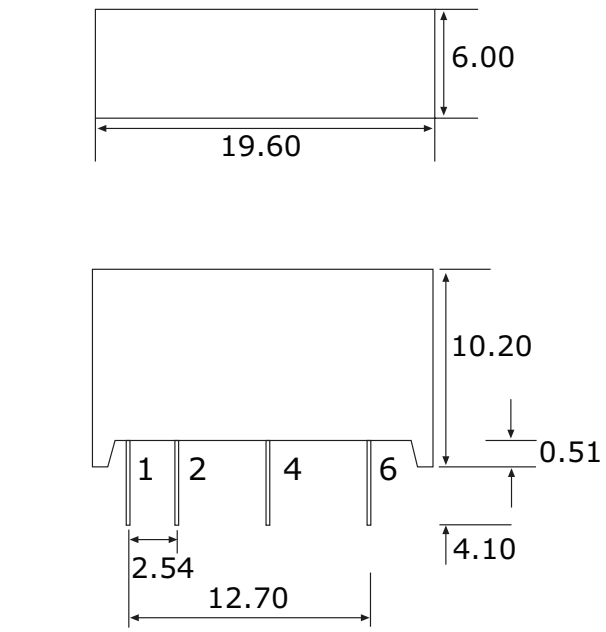
MECHANICAL

parameter	conditions/description	min	typ	max	units
dimensions	19.60 x 6.00 x 10.20				mm
case material	non-conductive black plastic (UL94V-0)				
weight			2.2		g

MECHANICAL DRAWING

units: mm
tolerance: ±0.25 mm

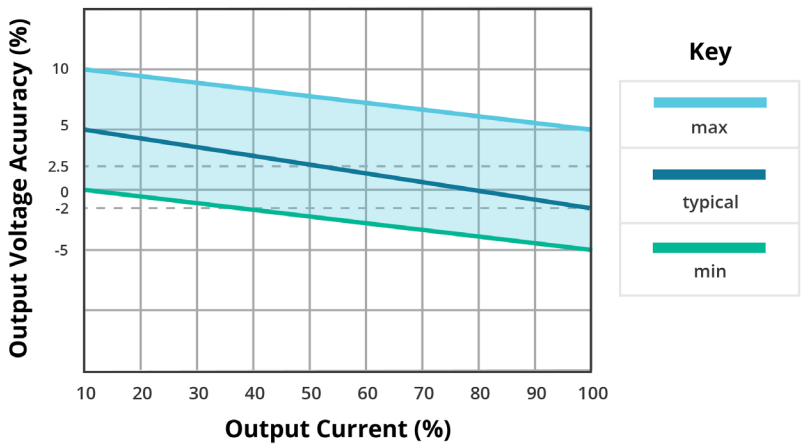
PIN CONNECTIONS	
PIN	Function
1	+Vin
2	-Vin
4	-Vout
6	+Vout



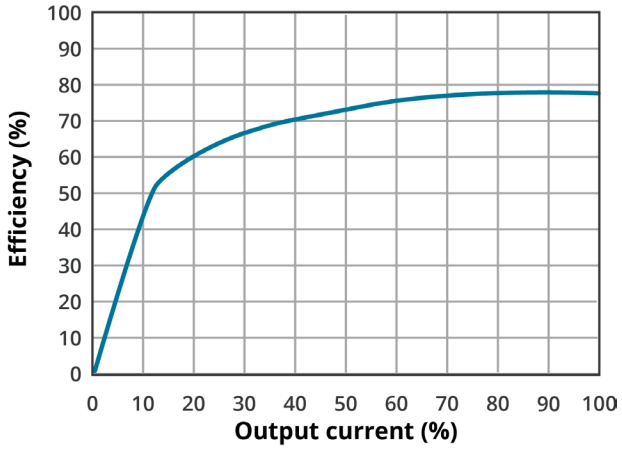
Recommended PCB Layout
Top View

PERFORMANCE CURVES

OUTPUT REGULATION CURVE (nominal input)



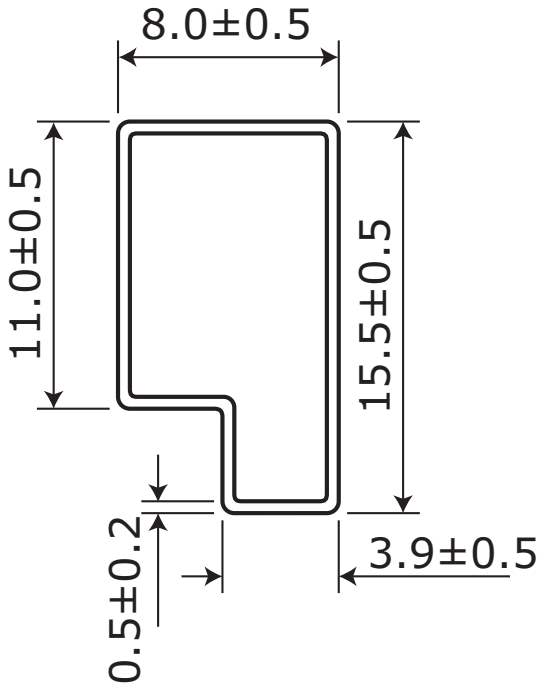
EFFICIENCY VS OUTPUT LOAD



PACKAGING

units: mm

Tube Size: 15.5 x 8 x 520 mm
QTY: 25 pcs



REVISION HISTORY

rev.	description	date
1.0	initial release	08/31/2016
1.01	company logo updated	04/12/2021
1.02	performance curves updated	06/30/2021
1.03	company address updated	11/05/2024
1.04	datasheet updated	04/24/2025

The revision history provided is for informational purposes only and is believed to be accurate.

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CUI offers a two (2) year limited warranty. Complete warranty information is listed on our website.

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