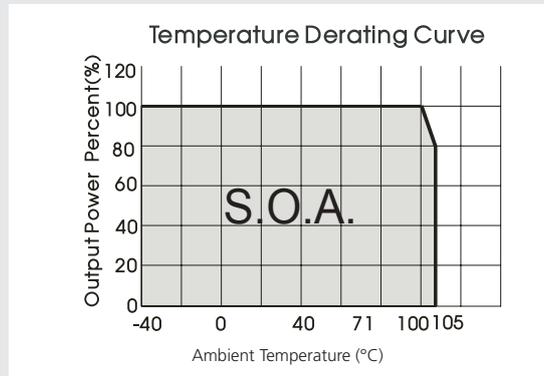


Number structure RT1

RT1	-	03	15	-	S	10	D	1	(v2)
Name/package		V-input nom.	V-output	Regulation	Output type	Power	Int. Code	Isolation	
RT1 = SMT-8		03 = 3.3V 05 = 5V ...	03 = 3.3V 05 = 5V ...	_ = unreg.	S = Single	02 = 0.25W 10 = 1.00W ...	Logistics Code	1 = 1.5kVDC 3 = 3.0/3.5kVDC	
		24 = 24V	24 = 24V			20 = 2.00W			



Model Selection Guide

Suffix X = 1 means 1.5 kV DC and X = 3 means 3.0 kV DC Isolation Voltage

Model Number	Input		Output		Efficiency	Capacitor Load (µF)
	Voltage (VDC) Nom. (Range)	max. Current (mA) full/no load	Voltage (V DC)	Current (mA) max./min.	@ Full Load (% , Min./Typ.)	max.
RT1-0503S10DXv3	5 (4.5~5.5)	286/10	3.3	303/30	70/74	2400
RT1-0505S10DXv3	5 (4.5~5.5)	286/10	5	200/20	78/82	2400
RT1-0509S10DXv3	5 (4.5~5.5)	254/20	9	111/12	79/83	1000
RT1-0512S10DXv3	5 (4.5~5.5)	254/20	12	84/9	79/83	560
RT1-0515S10DXv3	5 (4.5~5.5)	254/30	15	67/7	79/83	560
RT1-0524S10DXv3	5 (4.5~5.5)	254/30	24	42/4	81/85	220

The models listed above are standard types. If you need special specifications or have questions regarding packing or need application support, please contact our specialists: sales@rsg-electronic.de or +49 69-984047-0

Electrical Characteristic Curves

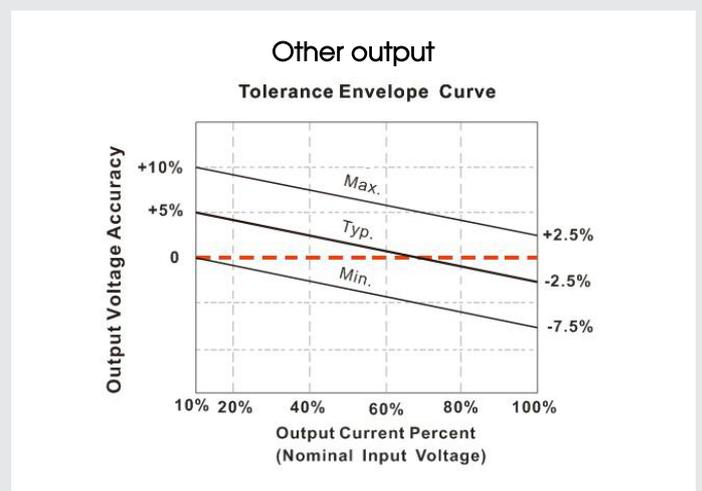
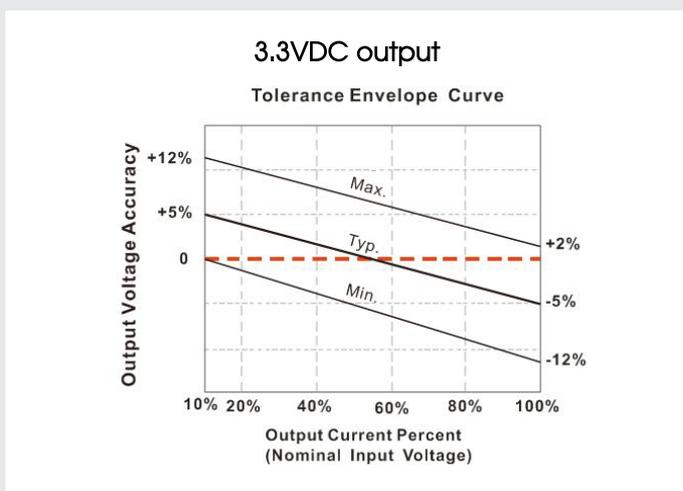
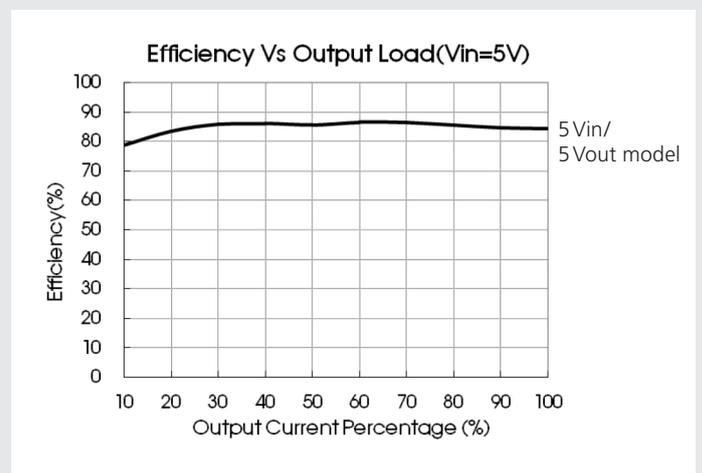
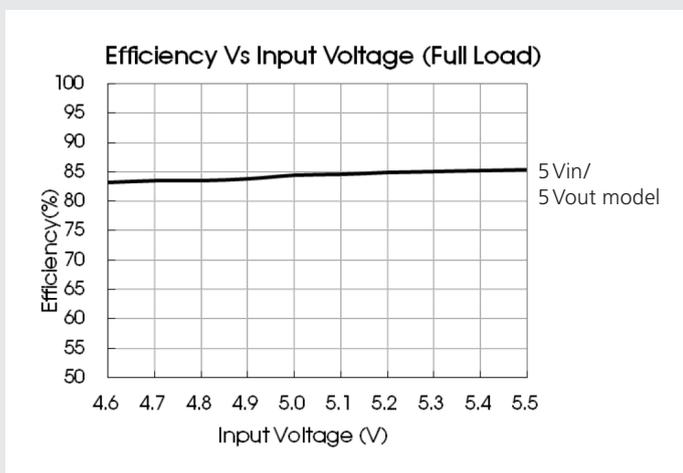


Fig. 1

Design Reference

1. Typical application circuit

If it is required to further reduce input and output ripple, a filter capacitor may be connected to the input and output terminals, see Fig.3. Moreover, choosing a suitable filter capacitor is very important, start-up problems may be caused if the capacitance is too large. Under the condition of safe and reliable operation, the recommended capacitive load values are shown in table below.

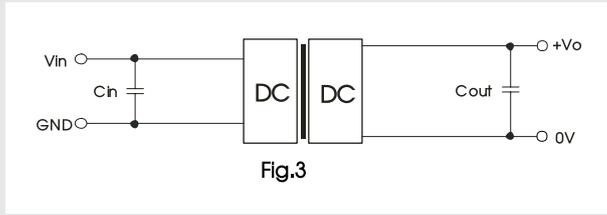


Fig.3

Recommended capacitive load value table (Table 1)			
V_{in} (VDC)	C_{in} (μ F)	V_o (VDC)	C_{out} (μ F)
5	4.7	3.3/5	10
		9	4.7
		12	2.2
		15	1
		24	0.47

2. EMC solution-recommended circuit

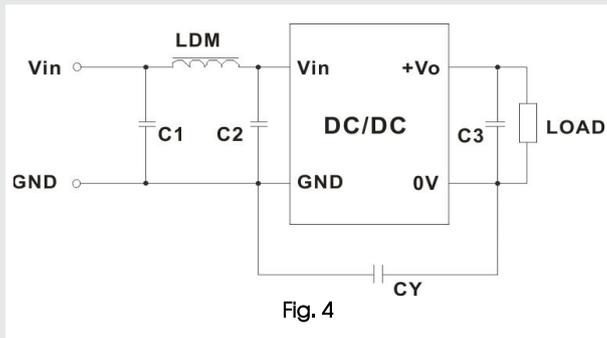
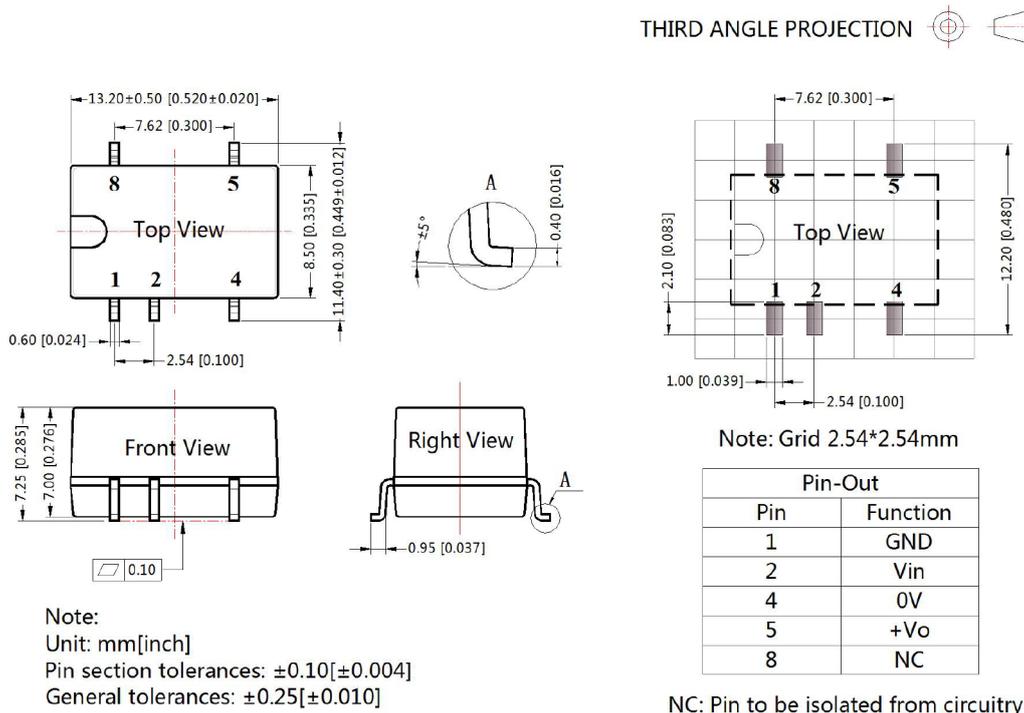


Fig. 4

EMC recommended circuit value table (Table 2)					
Input voltage	Output voltage	3.3/5/9	12/15/24 (1.5 kVDC models)	12/15/24 (3.0 kVDC models)	
5 VDC	EMI	C1/C2	4.7 μ F/25V		
		CY	–	1 nF/2 kVDC HEC C1206X102K202T JOHANSON 202R18W102KV4E	1 nF/4 kVDC VISHAY HGZ102MBP TDK CD45-E2GA102M-GKA
		L3	Refer to the C_{out} in table 1		
		LDM	6.8 μ H		

Note: In the case of actual use, the requirements for EMI are high, it is subject to CY.

Mechanical Specifications



Notes

1. If the product is not operated within the required load range, the product performance cannot be guaranteed to comply with all parameters in the datasheet.
2. The maximum capacitive loads offered were tested at input voltage range and full load.
3. Unless otherwise specified, parameters in this datasheet were measured under the conditions of $T_a=25$, humidity<75%RH with nominal input voltage and rated output load.