

- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage  
48:DC36 - 76V
- ⑤ Output voltage
- ⑥ Mounting type  
(Soldering process)  
A :SMD(Sn-Pb solder)  
B :SMD(Pb-free solder)  
C :DIP(Pb-free solder)

MODEL	SFS15481R2	SFS15481R5	SFS15481R8	SFS154802	SFS15482R5	SFS15483R3	SFS154805	SFS154812	SFS154815
MAX OUTPUT WATTAGE[W]	6.24	7.8	8.1	9.0	11.25	14.85	15.0	15.0	15.0
DC OUTPUT	1.2V 5.2A	1.5V 5.2A	1.8V 4.5A	2V 4.5A	2.5V 4.5A	3.3V 4.5A	5V 3A	12V 1.25A	15V 1A

## SPECIFICATIONS

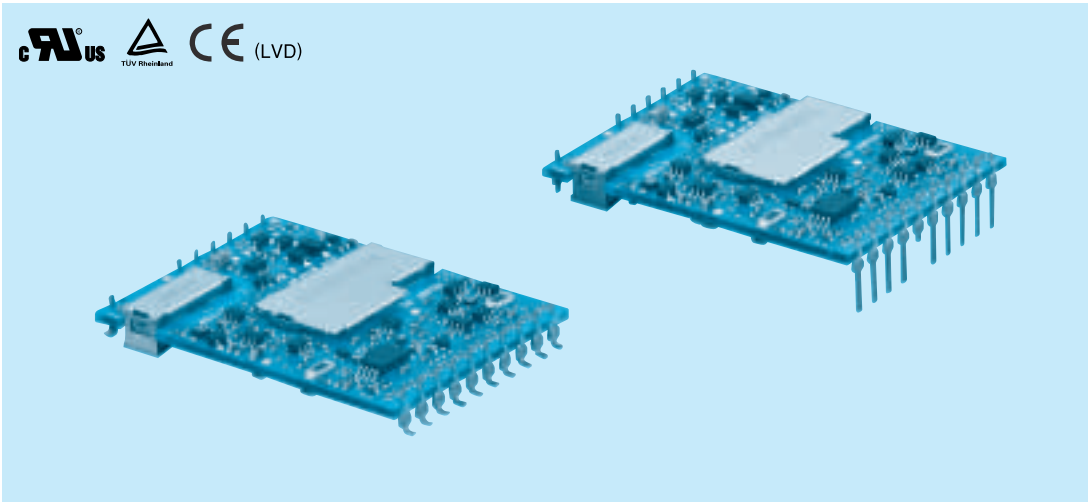
	MODEL	SFS15481R2	SFS15481R5	SFS15481R8	SFS154802	SFS15482R5	SFS15483R3	SFS154805	SFS154812	SFS154815	
INPUT	VOLTAGE[V]	DC36 - 76									
	CURRENT[A]	*1 0.16typ	0.2typ	0.2typ	0.22typ	0.27typ	0.35typ	0.35typ	0.35typ	0.35typ	
	EFFICIENCY[%]	*1 82typ	83typ	85typ	86typ	87typ	89typ	90typ	89typ	89typ	
	START-UP VOLTAGE[V]	DC32 - 36									
	HYSTERESIS VOLTAGE[V]	DC2 min									
OUTPUT	VOLTAGE[V]	1.2	1.5	1.8	2	2.5	3.3	5	12	15	
	CURRENT[A]	5.2	5.2	4.5	4.5	4.5	4.5	3	1.25	1	
	VOLTAGE ACCURACY[%]	+5, -3									
	RIPPLE[mVp-p]	25max								120max	
	RIPPLE NOISE[mVp-p]	50max								150max	
	START-UP TIME[ms]	20 - 200max (DCIN 48V, Io=100%)									
PROTECTION CIRCUIT AND OTHERS	OUTPUT VOLTAGE SETTING *1	±1% of rated output voltage									
	OVERCURRENT PROTECTION	Works over 103% of rating									
	OVERVOLTAGE PROTECTION	Works at 120 - 140% of rating									
	LOWVOLTAGE PROTECTION	Works at 90% max of rating									
ISOLATION	REMOTE ON/OFF	Provided(RC open : ON, short between RC and +Vin : OFF)									
ENVIRONMENT	INPUT-OUTPUT	DC1.500V 1minute, DC500V 50MΩ min (20±15°C)									
	OPERATING TEMP.,HUMID.AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 3,000m (10,000feet) max									
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +100°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max									
	VIBRATION	10 - 55Hz, 49.0m/s <sup>2</sup> (5G), 3minutes period, 60minutes each along X, Y and Z axis									
SAFETY	IMPACT	196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis									
	AGENCY APPROVALS	UL60950-1, C-UL (CSA60950-1), EN60950-1									
OTHERS	CASE SIZE/WEIGHT	38.7×5.0×27.2mm (W×H×D) /12g max									
	COOLING METHOD	Convection									

\*1 At rated input(DC48V), rated load and 25°C

## Basic Characteristics Data

Model	Circuit method	Switching frequency [kHz]	Input current [A]	Rated input fuse	Inrush current protection	PCB/Pattern			Series/Parallel operation availability	
						Material	Single sided	Double sided	Series operation	Parallel operation
SFS10	Single ended forward converter	570 - 670	* 1	-	-	glass fabric base.epoxy resin		Multilayer	Yes	Yes
SFS15	Single ended forward converter	570 - 670	* 1	-	-	glass fabric base.epoxy resin		Multilayer	Yes	Yes
SFS30	Single ended forward converter	440 - 530	* 1	-	-	glass fabric base.epoxy resin		Multilayer	Yes	Yes

\* 1 Refer to Specification.



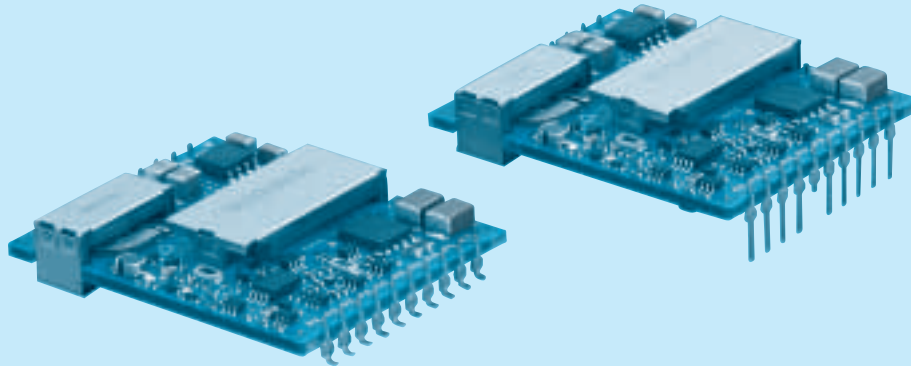
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MODEL	SFS10481R2	SFS10481R5	SFS10481R8	SFS104802	SFS10482R5	SFS10483R3	SFS104805	SFS104812	SFS104815
MAX OUTPUT WATTAGE[W]	4.2	5.25	5.4	6.0	7.5	9.9	10.0	10.8	10.5
DC OUTPUT	1.2V 3.5A	1.5V 3.5A	1.8V 3A	2V 3A	2.5V 3A	3.3V 3A	5V 2A	12V 0.9A	15V 0.7A

## SPECIFICATIONS

	MODEL	SFS10481R2	SFS10481R5	SFS10481R8	SFS104802	SFS10482R5	SFS10483R3	SFS104805	SFS104812	SFS104815	
INPUT	VOLTAGE[V]	DC36 - 76									
	CURRENT[A]	*1 0.11typ	0.13typ	0.13typ	0.15typ	0.18typ	0.23typ	0.23typ	0.26typ	0.25typ	
	EFFICIENCY[%]	*1 80typ	82typ	84typ	85typ	86typ	88typ	89typ	88typ	88typ	
	START-UP VOLTAGE[V]	DC32 - 36									
	HYSTERESIS VOLTAGE[V]	DC2 min									
OUTPUT	VOLTAGE[V]	1.2	1.5	1.8	2	2.5	3.3	5	12	15	
	CURRENT[A]	3.5	3.5	3	3	3	3	2	0.9	0.7	
	VOLTAGE ACCURACY[%]	+5, -3									
	RIPPLE[mVp-p]	25max							120max		
	RIPPLE NOISE[mVp-p]	50max							150max		
	START-UP TIME[ms]	20 - 200max (DCIN 48V, Io=100%)									
PROTECTION CIRCUIT AND OTHERS	OVERCURRENT PROTECTION	Works over 103% of rating									
	OVERVOLTAGE PROTECTION	Works at 120 - 140% of rating									
	LOWVOLTAGE PROTECTION	Works at 90% max of rating									
	REMOTE ON/OFF	Provided(RC open : ON, short between RC and +Vin : OFF)									
ISOLATION	INPUT-OUTPUT	DC1.500V 1minute, DC500V 50MΩ min (20±15°C)									
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 3,000m (10,000feet) max									
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +100°C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max									
	VIBRATION	10 - 55Hz, 49.0m/s <sup>2</sup> (5G), 3minutes period, 60minutes each along X, Y and Z axis									
	IMPACT	196.1m/s <sup>2</sup> (20G), 11ms, once each X, Y and Z axis									
SAFETY	AGENCY APPROVALS	UL60950-1, C-UL (CSA60950-1), EN60950-1									
OTHERS	CASE SIZE/WEIGHT	38.7 × 5.0 × 27.2mm (W × H × D) /12g max									
	COOLING METHOD	Convection									

\*1 At rated input(DC48V), rated load and 25°C



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MODEL	SFS30481R2	SFS30481R5	SFS30481R8	SFS304802	SFS30482R5	SFS30483R3	SFS304805	SFS304810	SFS304812	SFS304815
MAX OUTPUT WATTAGE[W]	12.48	15.6	16.2	18.0	22.5	29.7	30.0	30.0	30.0	30.0
DC OUTPUT	1.2V 10.4A	1.5V 10.4A	1.8V 9A	2V 9A	2.5V 9A	3.3V 9A	5V 6A	10V 3A	12V 2.5A	15V 2A

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INPUT	VOLTAGE[V]	DC36 - 76										
	CURRENT[A]	*1 0.30typ	0.37typ	0.38typ	0.42typ	0.52typ	0.67typ	0.68typ	0.69typ	0.68typ	0.68typ	
	EFFICIENCY[%]	*1 86typ	87.5typ	89typ	89typ	91typ	92typ	92.5typ	91typ	92typ	92typ	
	START-UP VOLTAGE[V]	DC32 - 36										
	HYSTERESIS VOLTAGE[V]	DC2 min										
OUTPUT	VOLTAGE[V]	1.2	1.5	1.8	2	2.5	3.3	5	10	12	15	
	CURRENT[A]	10.4	10.4	9	9	9	9	6	3	2.5	2	
	VOLTAGE ACCURACY[%]	+5, -3										
	RIPPLE[mVp-p]	25max							120max			
	RIPPLE NOISE[mVp-p]	50max							150max			
	START-UP TIME[ms]	20 - 200max (DCIN 48V, Io=100%)										
ISOLATION	INPUT-OUTPUT	DC1.500V 1minute, DC500V 50MΩ min (20±15°C)										
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-40 to +85°C, 20 - 95%RH (Non condensing), 3,000m (10,000feet) max										
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SAFETY	AGENCY APPROVALS	UL60950-1, C-UL (CSA60950-1), EN60950-1										
OTHERS	CASE SIZE/WEIGHT	38.7×8.0×31.2mm (W×H×D) /20g max										
	COOLING METHOD	Convection/Forced air										

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SFS15	Single ended forward converter	570 - 670	* 1	-	-	glass fabric base.epoxy resin		Multilayer	Yes	Yes
SFS30	Single ended forward converter	440 - 530	* 1	-	-	glass fabric base.epoxy resin		Multilayer	Yes	Yes

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