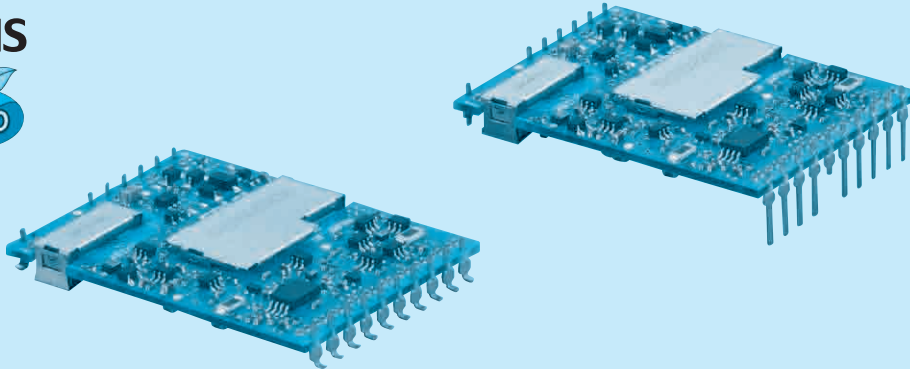
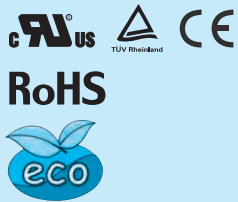


SFS10

SF S 10 48 3R3 B

① ② ③ ④ ⑤ ⑥



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

SFS/SFCS

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

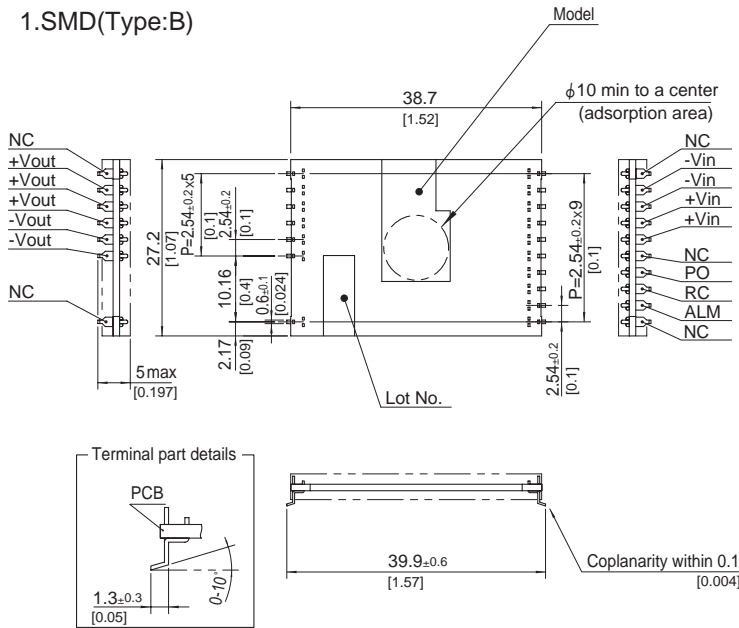
SPECIFICATIONS

	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	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 (SMD:Refer to the Instruction Manual)									
	VIBRATION	10 - 55Hz, 49.0m/s ² (5G), 3minutes period, 60minutes each along X, Y and Z axis									
SAFETY	IMPACT	196.1m/s ² (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 [1.52 × 0.197 × 1.07 inches] (W × H × D) /12g max									
	COOLING METHOD	Convection									

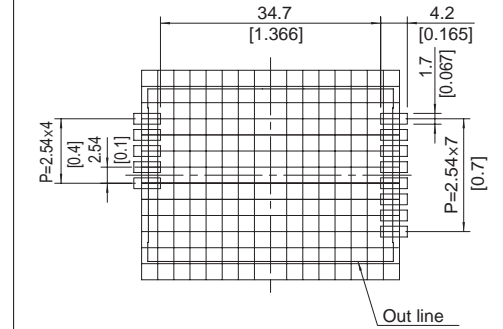
*1 At rated input(DC48V), rated load and 25°C

External view

1.SMD(Type:B)



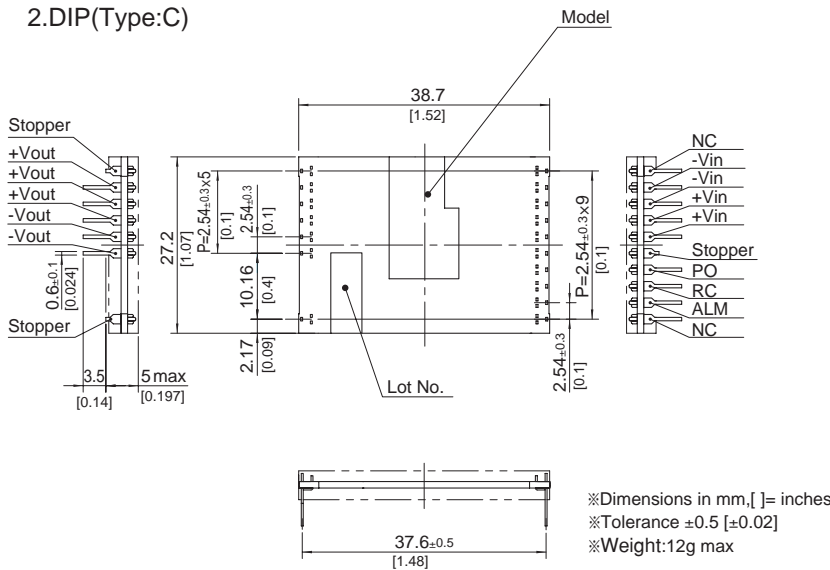
Recommended size for processing PCB (TOP VIEW)



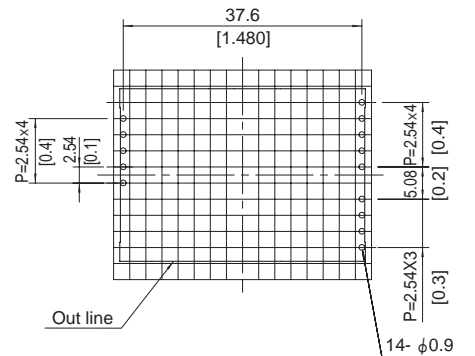
※Dimensions in: $\frac{\text{mm}}{\text{[inch]}}$

※Div.: 0.1inch

2.DIP(Type:C)



Recommended size for processing PCB (TOP VIEW)



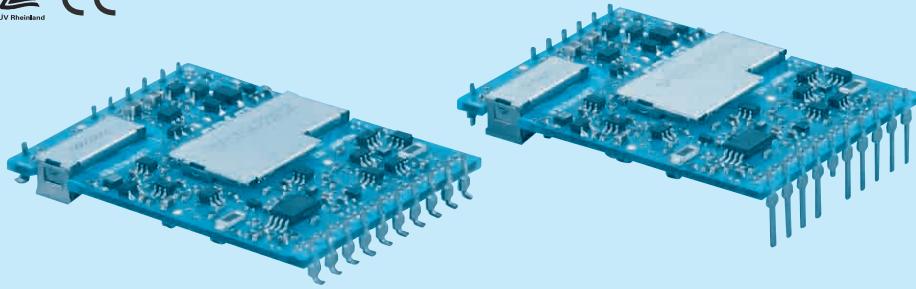
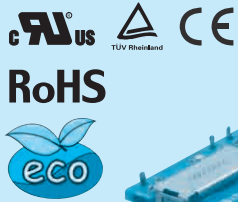
※Dimensions in: $\frac{\text{mm}}{\text{[inch]}}$

※Div.: 0.1inch

SFS15

SF S 15 48 3R3 B

① ② ③ ④ ⑤ ⑥



- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
24:DC18 - 36V
48:DC36 - 76V
- ⑤ Output voltage
- ⑥ Mounting type
(Soldering process)
B : SMD (Pb-free solder)
C : DIP (Pb-free solder)

MODEL	SFS15241R5	SFS15241R8	SFS15242R5	SFS15243R3	SFS152405	SFS152412	SFS152415
MAX OUTPUT WATTAGE[W]	7.8	8.1	11.25	14.85	15.0	15.0	15.0
DC OUTPUT	1.5V 5.2A	1.8V 4.5A	2.5V 4.5A	3.3V 4.5A	5V 3A	12V 1.25A	15V 1A

SPECIFICATIONS

	MODEL	SFS15241R5	SFS15241R8	SFS15242R5	SFS15243R3	SFS152405	SFS152412	SFS152415	
INPUT	VOLTAGE[V]	DC18 - 36							
	CURRENT[A]	*1 0.39typ	0.4typ	0.54typ	0.7typ	0.69typ	0.7typ	0.7typ	
	EFFICIENCY[%]	*1 83typ	85typ	87typ	89typ	90typ	89typ	89typ	
	START-UP VOLTAGE[V]	DC16 - 18							
	HYSTERESIS VOLTAGE[V]	DC1 min							
OUTPUT	VOLTAGE[V]	1.5	1.8	2.5	3.3	5	12	15	
	CURRENT[A]	5.2	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 24V, 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							
	REMOTE ON/OFF	Provided(RC open : ON, short between RC and +Vin : OFF)							

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									
	REMOTE ON/OFF	Provided(RC open : ON, short between RC and +Vin : OFF)									

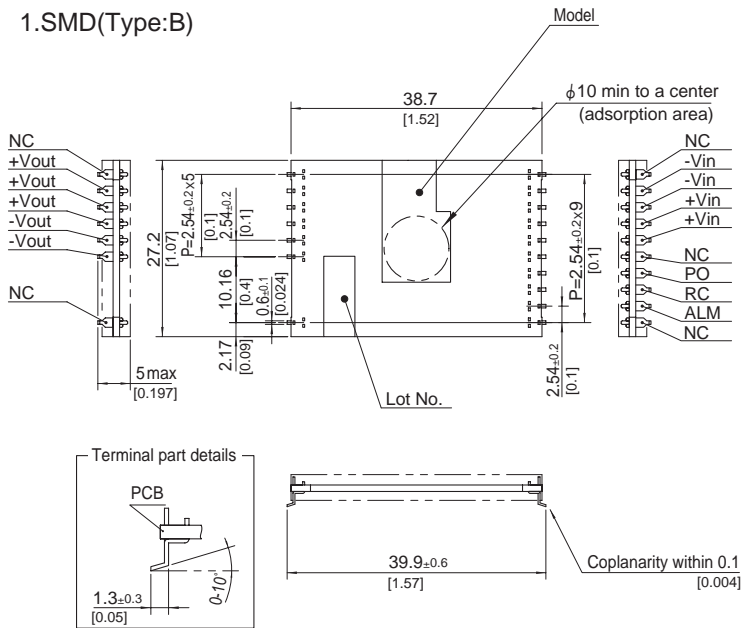
GENERAL SPECIFICATIONS

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 (SMD:Refer to the Instruction Manual)
	VIBRATION	10 - 55Hz, 49.0m/s ² (5G), 3minutes period, 60minutes each along X, Y and Z axis
	IMPACT	196.1m/s ² (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 [1.52×0.197×1.07 inches] (W×H×D) /12g max
	COOLING METHOD	Convection

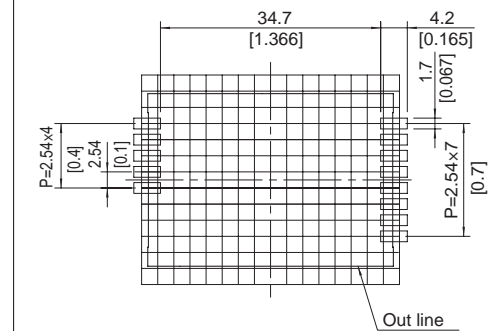
*1 At rated input(DC24V, DC48V), rated load and 25°C

External view

1.SMD(Type:B)



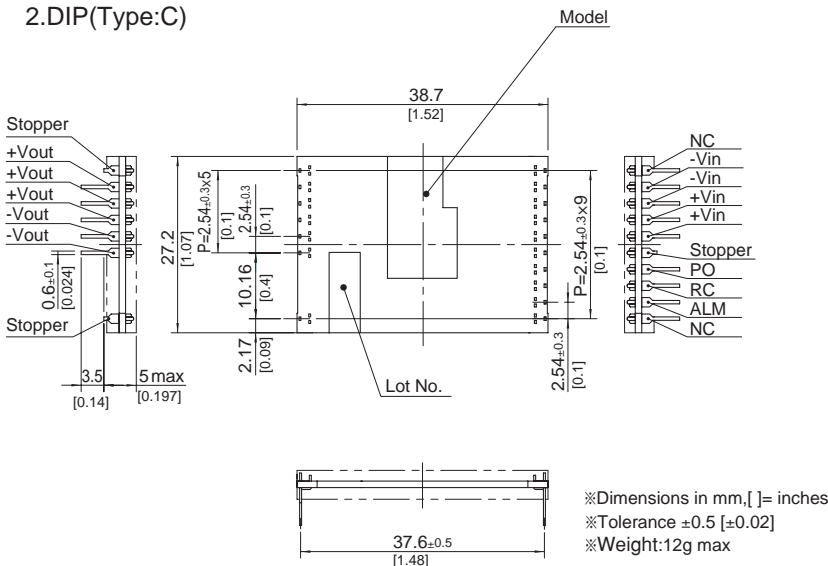
Recommended size for processing PCB (TOP VIEW)



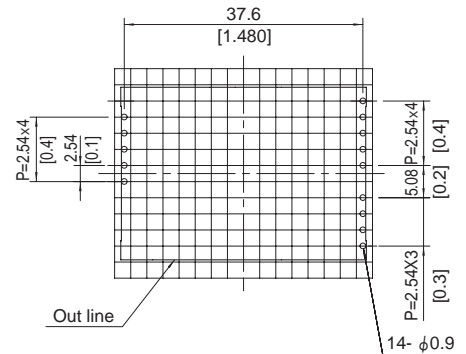
※Dimensions in: mm [inch]

※Div.: 0.1inch

2.DIP(Type:C)



Recommended size for processing PCB (TOP VIEW)



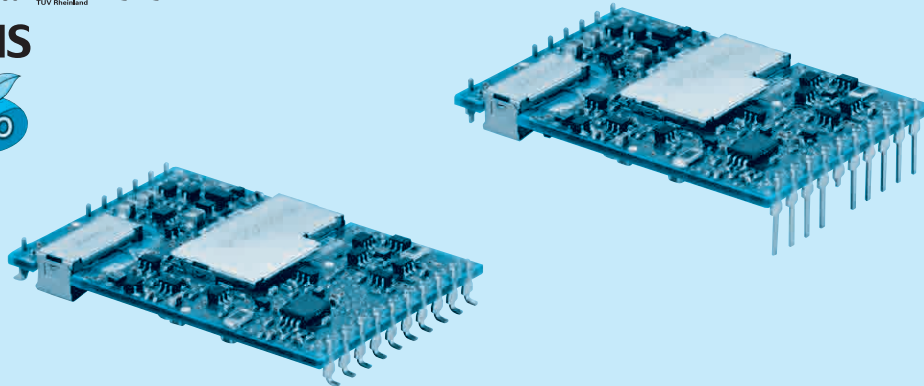
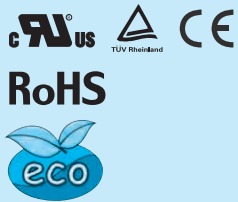
※Dimensions in: mm [inch]

※Div.: 0.1inch

SFS20

SF S 20 48 3R3 B

① ② ③ ④ ⑤ ⑥



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

MODEL	SFS20481R5	SFS20481R8	SFS20482R5	SFS20483R3	SFS204805
MAX OUTPUT WATTAGE[W]	13.5	14.4	17.5	19.8	20.0
DC OUTPUT	1.5V 9A	1.8V 8A	2.5V 7A	3.3V 6A	5V 4A

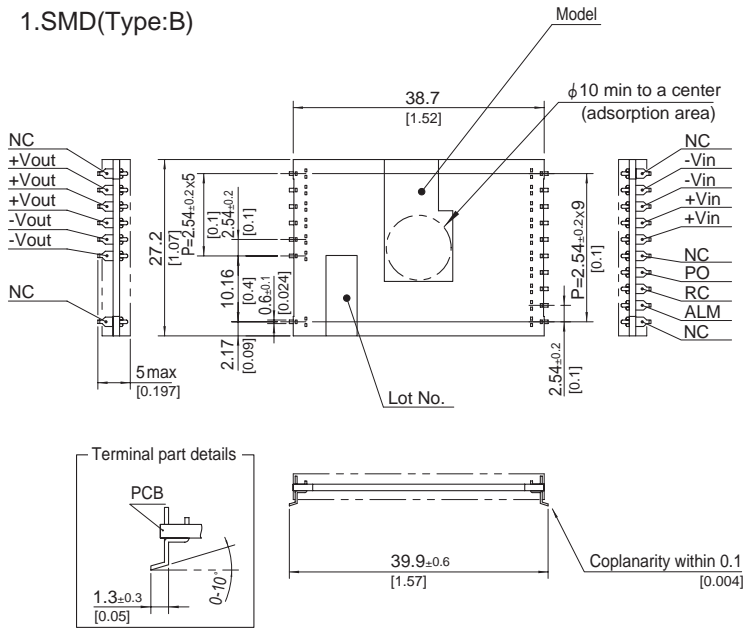
SPECIFICATIONS

	MODEL	SFS20481R5	SFS20481R8	SFS20482R5	SFS20483R3	SFS204805
INPUT	VOLTAGE[V]	DC36 - 76				
	CURRENT[A]	*1 0.33typ	0.35typ	0.41typ	0.46typ	0.46typ
	EFFICIENCY[%]	*1 86typ	85typ	88typ	90typ	90typ
	START-UP VOLTAGE[V]	DC32 - 36				
	HYSTERESIS VOLTAGE[V]	DC2 min				
OUTPUT	VOLTAGE[V]	1.5	1.8	2.5	3.3	5
	CURRENT[A]	9	8	7	6	4
	VOLTAGE ACCURACY[%]	+5, -3				
	RIPPLE[mVp-p]	50max				
	RIPPLE NOISE[mVp-p]	50max				
	START-UP TIME[ms]	20 - 200max (DCIN 48V, Io=100%)				
PROTECTION CIRCUIT AND OTHERS	OUTPUT VOLTAGE SETTING *1	+2, -1% of rated output voltage				
	OVERCURRENT PROTECTION	Works over 103% of rating				
	OVERVOLTAGE PROTECTION	Works at 115 - 145% of rating				
	LOWVOLTAGE PROTECTION	Works at 95% 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℃)				
	OPERATING TEMP.,HUMID.AND ALTITUDE	-40 to +85℃, 20 - 95%RH (Non condensing), 3,000m (10,000feet) max				
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +100℃, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max (SMD:Refer to the Instruction Manual)				
	VIBRATION	10 - 55Hz, 49.0m/s ² (5G), 3minutes period, 60minutes each along X, Y and Z axis				
SAFETY	IMPACT	196.1m/s ² (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 [1.52 × 0.197 × 1.07 inches] (W × H × D) /12g max				
	COOLING METHOD	Convection/Forced air				

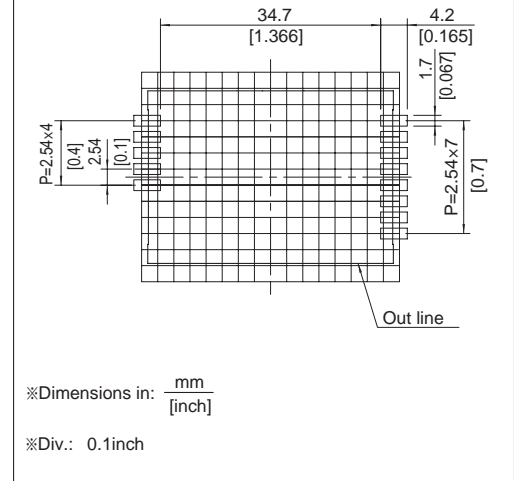
*1 At rated input(DC48V), rated load and 25℃

External view

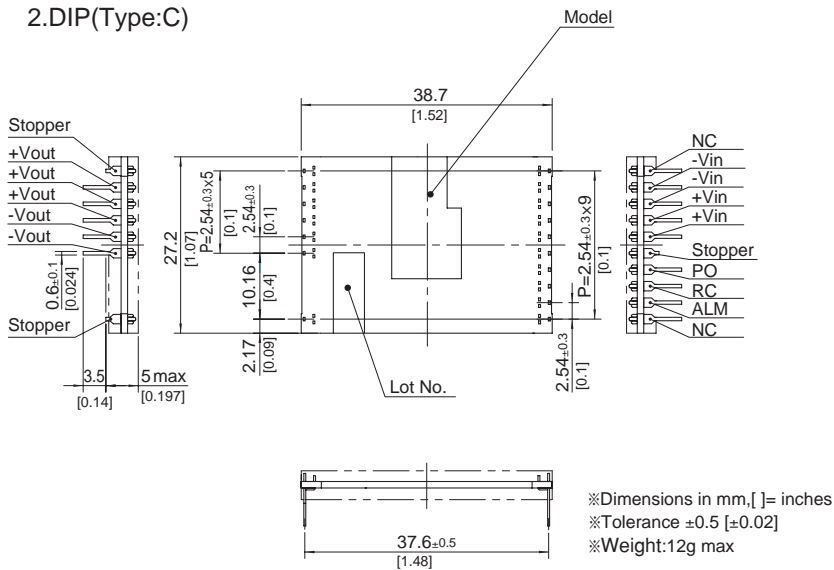
1.SMD(Type:B)



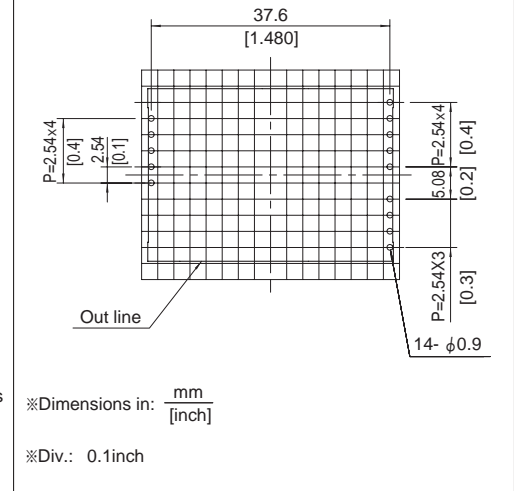
Recommended size for processing PCB (TOP VIEW)



2.DIP(Type:C)



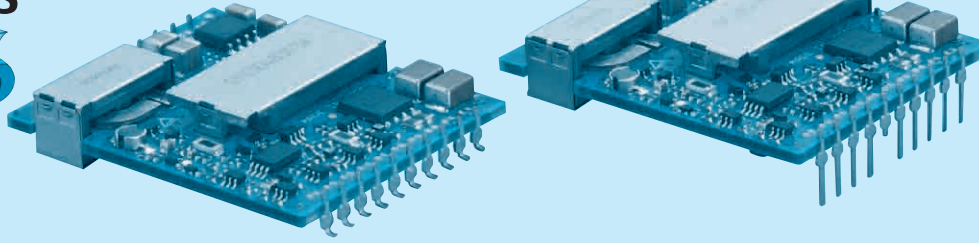
Recommended size for processing PCB (TOP VIEW)



SFS30

SF S 30 48 3R3 B

① ② ③ ④ ⑤ ⑥



- ① Series name
- ② Single output
- ③ Output wattage
- ④ Input voltage
24:DC18 - 36V
48:DC36 - 76V
- ⑤ Output voltage
- ⑥ Mounting type
(Soldering process)
B : SMD(Pb-free solder)
C : DIP(Pb-free solder)

MODEL	SFS30241R2	SFS30241R5	SFS30241R8	SFS30242R5	SFS30243R3	SFS302405	SFS302412	SFS302415
MAX OUTPUT WATTAGE[W]	12.48	15.6	16.2	22.5	29.7	30.0	30.0	30.0
DC OUTPUT	1.2V 10.4A	1.5V 10.4A	1.8V 9A	2.5V 9A	3.3V 9A	5V 6A	12V 2.5A	15V 2A

SPECIFICATIONS

	MODEL	SFS30241R2	SFS30241R5	SFS30241R8	SFS30242R5	SFS30243R3	SFS302405	SFS302412	SFS302415	
INPUT	VOLTAGE[V]	DC18 - 36								
	CURRENT[A]	*1 0.60typ	0.74typ	0.76typ	1.04typ	1.36typ	1.36typ	1.36typ	1.39typ	
	EFFICIENCY[%]	*1 86.5typ	87.5typ	89typ	90typ	91typ	92typ	92typ	90typ	
	START-UP VOLTAGE[V]	DC16 - 18								
	HYSTERESIS VOLTAGE[V]	DC1 min								
OUTPUT	VOLTAGE[V]	1.2	1.5	1.8	2.5	3.3	5	12	15	
	CURRENT[A]	10.4	10.4	9	9	9	6	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 24V, 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								
	REMOTE ON/OFF	Provided(RC open : ON, short between RC and +Vin : OFF)								

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

SPECIFICATIONS

	MODEL	SFS30481R2	SFS30481R5	SFS30481R8	SFS304802	SFS30482R5	SFS30483R3	SFS304805	SFS304810	SFS304812	SFS304815	
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%)										
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										
	REMOTE ON/OFF	Provided(RC open : ON, short between RC and +Vin : OFF)										

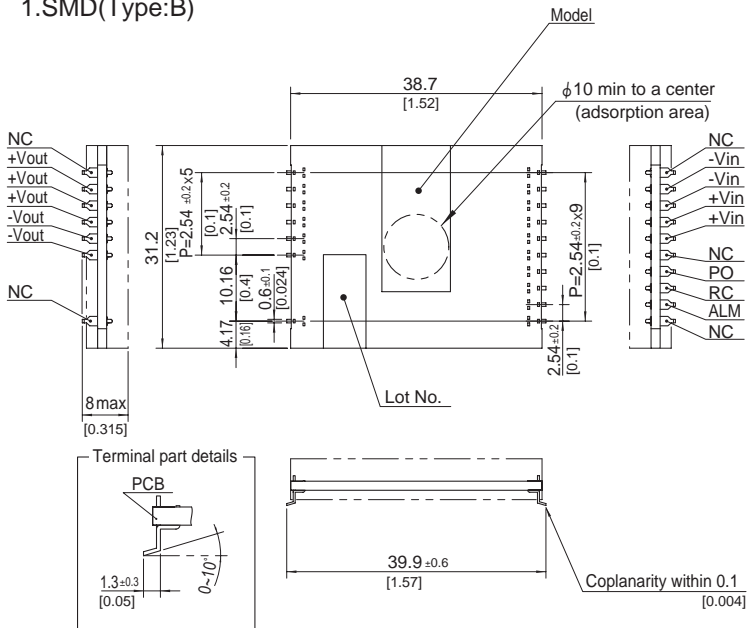
GENERAL SPECIFICATIONS

ISOLATION	INPUT-OUTPUT	DC1.500V 1minute, DC500V 50M Ω min (20 \pm 15 $^{\circ}$ C)
ENVIRONMENT	OPERATING TEMP.,HUMID.AND ALTITUDE	-40 to +85 $^{\circ}$ C, 20 - 95%RH (Non condensing), 3,000m (10,000feet) max
	STORAGE TEMP.,HUMID.AND ALTITUDE	-40 to +100 $^{\circ}$ C, 20 - 95%RH (Non condensing), 9,000m (30,000feet) max (SMD:Refer to the Instruction Manual)
	VIBRATION	10 - 55Hz, 49.0m/s 2 (5G), 3minutes period, 60minutes each along X, Y and Z axis
	IMPACT	196.1m/s 2 (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 x 8.0 x 31.2mm [1.52 x 0.315 x 1.23 inches] (W x H x D) /20g max
	COOLING METHOD	Convection/Forced air

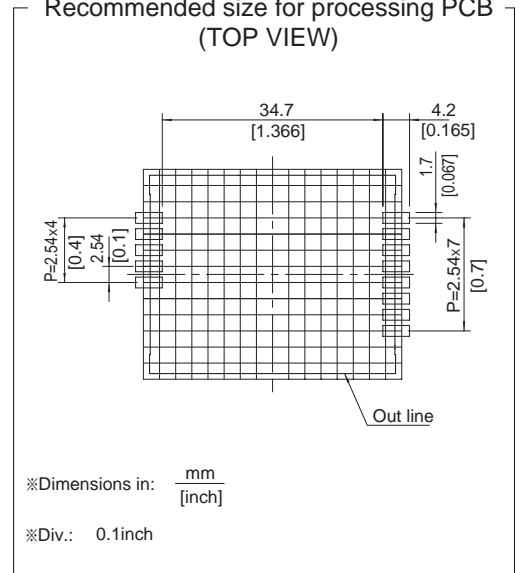
*1 At rated input(DC24V, DC48V), rated load and 25 $^{\circ}$ C

External view

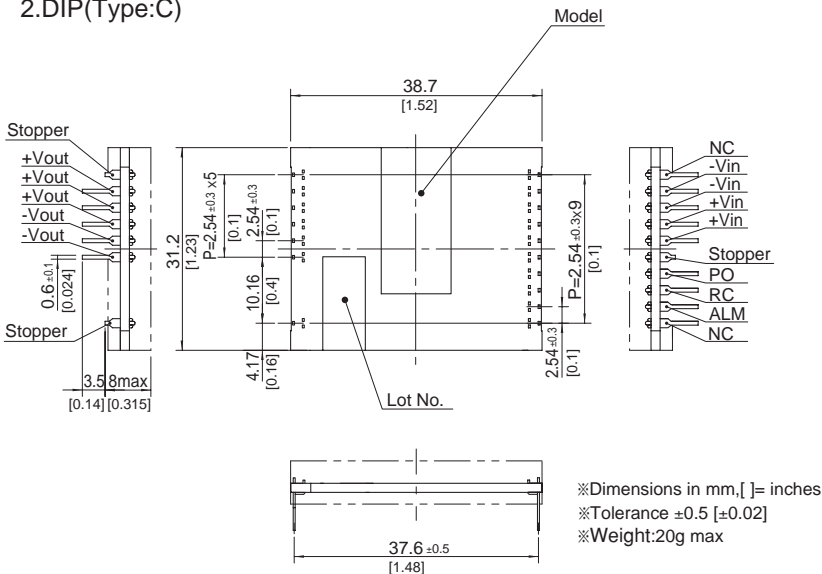
1.SMD(Type:B)



Recommended size for processing PCB (TOP VIEW)



2.DIP(Type:C)



Recommended size for processing PCB (TOP VIEW)

