






 *Product Catalog*  
Power Management and Power Driver

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Silan has designed various LED products and offers corresponding services covering LED driver IC, LED light source, high-end LED package, LED lighting, etc. LED products family has the biggest domestic market share.

AC/DC LED Driver	Internal MOSFET		External MOSFET	Internal MOSFET	
	TRIAC Dimming	Analog/PWM Dimming		Non-Dimmable	
APFC+PSR Flyback	SDH7002	SDH7502	SD6800	SD6802S/SC	SDH6817D
	SDH7003A		SD6800B/BC	SD6804S/SC	
				SD6804AS/ASC	
				SD6804D/DC	
			SD6807D/DC		
APFC (Buck /Buck-boost)	SDH7002(Buck-Boost)		SD6900	SD6901S	SD6921S
	SDH7003A(Buck-Boost)		SD6920	SD6902S	SD6922S
			SD6910A(Buck-Boost)	SD6904S	SD6924S
				SD6904D	SD6924D
				SDH6971S	SDH6971FS
				SDH6972S	SDH6972FS
				SDH6974S	SD691XS(Buck-Boost)
				SD6741S	SD692XAS
				SD6742S	
PSR Flyback			SD6620	SD6601S	SD6603D
				SD6601AS	SD6604D
				SD6602AS	SD7623D
				SD6602S	SD7624D
				SD6602D	
Buck		SD6792S		SD6701ASC	SD6701DC
		SD6794S		SD6701SC	SD6702DC
				SD6702SC	SD6704D
				SD6703S	SDH7721K/S
				SD6703D	SDH7722K/S
				SD6704S	SDH7723K/S
				SD770XS	
				SD770XD	
HV Linear LED Driver	External MOSFET		Internal MOSFET		
	TRIAC Dimming	Non-Dimmable	TRIAC Dimming	Non-Dimmable	
				SD6501	
DC/DC LED Driver	External MOSFET		Internal MOSFET		
	Analog/PWM Dimming	Non-Dimmable	Analog/PWM Dimming	Non-Dimmable	
Buck-Boost			SD42560		
Buck			SD42524	SD42522	
			SD42527		

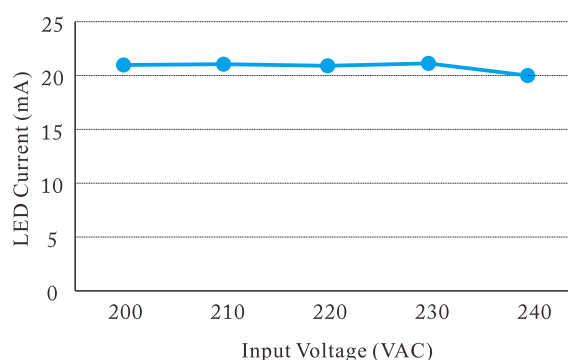
# High-voltage Linear Constant Current LED Driver IC

## Key Features

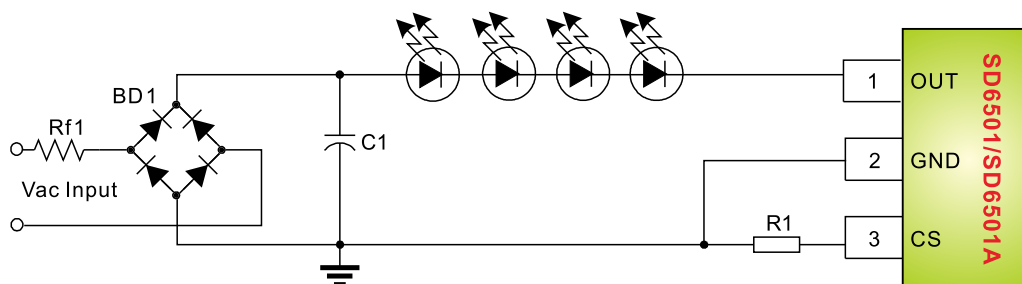
- ⊙ Integrated with high-voltage startup power supply
- ⊙ Linear constant current control, no EMI problem
- ⊙ Adjustable output current
- ⊙ Current accuracy (device-to-device) <math>< \pm 4\%</math>
- ⊙ Current reduction at high temperature
- ⊙ IC sharing aluminum substrate with LED
- ⊙ Low BOM cost



## Test Data



## Typical Application Circuit



## Characteristics

No.	Part No.	Max. output power (W) (or current)	Typical application	Input voltage (VAC)	Topology	Power Switch	MOS R <sub>dson</sub> ( $\Omega$ )	BV (V)	Current accuracy	Dimming or not	Power factor	Package
1	SD6501	9 (<math>< 40\text{mA}</math>)	260V30mA	200~240	Linear	Int. MOS	100	650	$\pm 4.0\%$	---	---	TO252-2L
2	SD6501A	16 (<math>< 60\text{mA}</math>)	260V60mA	200~240	Linear	Int. MOS	60	500	$\pm 4.0\%$	---	---	TO252-2L

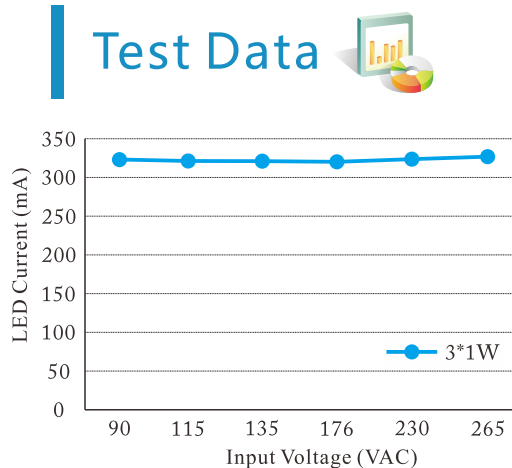
# Isolated Constant Current Driver IC

## Key Features

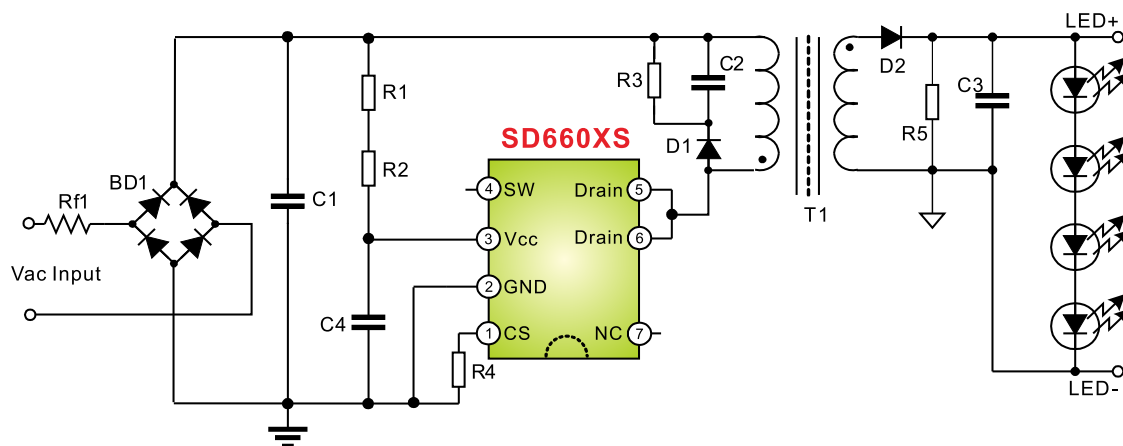
- ⊙ Primary side regulation
- ⊙ Built-in high-voltage MOSFET
- ⊙ Constant current accuracy:  $\pm 3\%$
- ⊙ VCC undervoltage protections
- ⊙ LED open circuit protection
- ⊙ LED short circuit protection
- ⊙ Low BOM cost



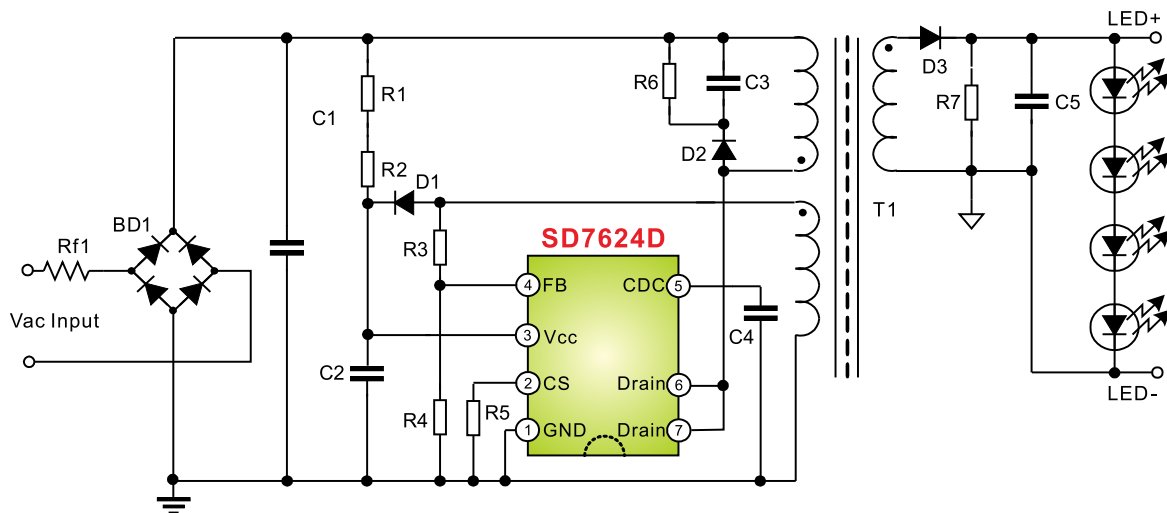
## Test Data



## Typical Application Circuit



# Isolated Constant Current Driver IC



## Characteristics

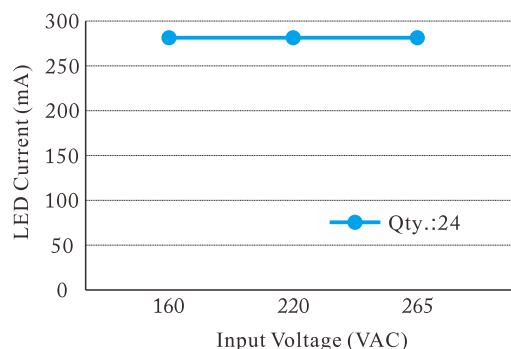
No.	Part No.	Max. output power (W)	Typical application	Input voltage (VAC)	Topology	Power Switch	MOS R <sub>dson</sub> (Ω)	BV (V)	Current accuracy	Dimming or not	Power factor	Package
1	SD6601AS	3	3*1W	90-265	PSR, two windings	Int. MOS	26	650	± 3.0%	---	---	SOP7
2	SD6601S	5	5*1W	90-265	PSR, two windings	Int. MOS	13	650	± 3.0%	---	---	SOP7
3	SD6602AS	7	7*1W	90-265	PSR, two windings	Int. MOS	7	600	± 3.0%	---	---	SOP7
4	SD6602S	9	9*1W	90-265	PSR, two windings	Int. MOS	4	600	± 3.0%	---	---	SOP7
5	SD6602D	12	12*1W	90-265	PSR, two windings	Int. MOS	4	600	± 3.0%	---	---	DIP7
6	SD6603D	18	18*1W	90-265	PSR, two windings	Int. MOS	3	650	± 3.0%	---	---	DIP7
7	SD6604D	20	20*1W	90-265	PSR, two windings	Int. MOS	2	650	± 3.0%	---	---	DIP7
8	SD6620	30	30*1W	90-265	PSR, three windings, CC/CV	Ext. MOS	/	/	± 3.0%	---	---	SOT23-6
9	SD7623D	18	18*1W	90-265	PSR, three windings, CC/CV	Int. MOS	3	650	± 3.0%	---	---	DIP7
10	SD7624D	24	24*1W	90-265	PSR, three windings, CC/CV	Int. MOS	2	650	± 3.0%	---	---	DIP7

# Non-isolated Constant Current Driver IC

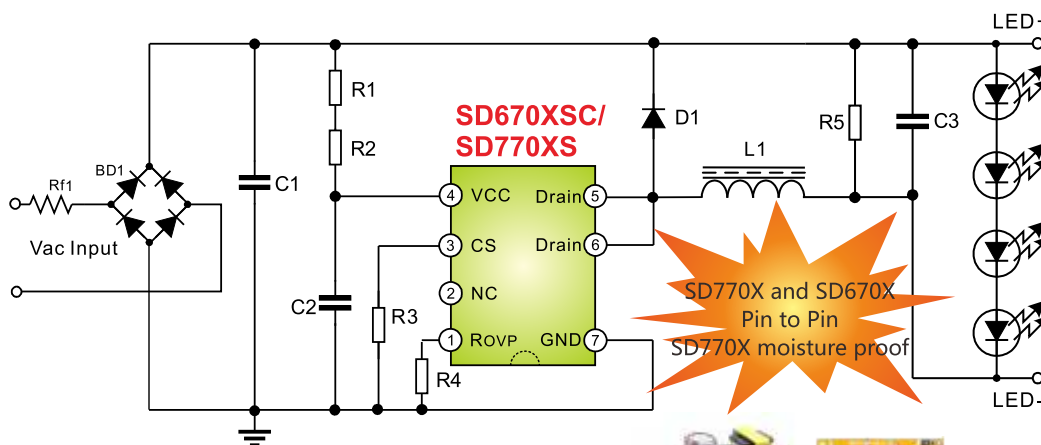
## Key Features

- ⊙ Non-isolated buck topology
- ⊙ Good line and load regulation:  $\pm 2\%$
- ⊙ Adjustable output open-circuit voltage to prevent damage on LED
- ⊙ Output short circuit protection
- ⊙ Current reduction at high temperature to avoid flickering
- ⊙ Auxiliary winding not needed
- ⊙ Low BOM cost
- ⊙ SD670XSC: ROVP pin grounded for moisture proof and antileakage
- ⊙ SD770X: Precise segmented control of OVP for moisture proof, applicable to application with no-load voltage requirement

## Test Data



## Typical Application Circuit



## Characteristics

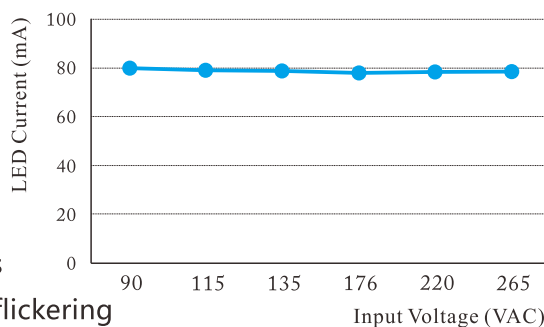
No.	Part No.	Max. output power (W) (or current)	Typical application	Input voltage (VAC)	Topology	Power Switch	MOS R <sub>ds(on)</sub> (Ω)	BV (V)	Current accuracy	Dimming or not	Power factor	Package
1	SD6701ASC/ SD7701AS	15 (<180mA)	120V 120mA	176-265	Non-isolated, single winding	Int. MOS	13	500	$\pm 2.5\%$	---	0.5	SOP7
2	SD6701SC/ SD7701S	18 (<240mA)	150V 120mA	176-265	Non-isolated, single winding	Int. MOS	7.5	500	$\pm 2.5\%$	---	0.5	SOP7
3	SD6702SC/ SD7702S	30 (<280mA)	126V 240mA	176-265	Non-isolated, single winding	Int. MOS	5	500	$\pm 2.5\%$	---	0.5	SOP7
4	SD6703S/ SD7703S	32 (<300mA)	130V 260mA	176-265	Non-isolated, single winding	Int. MOS	2.8	500	$\pm 2.5\%$	---	0.5	SOP7
5	SD6704S	40 (<360mA)	120V 330mA	176-265	Non-isolated, single winding	Int. MOS	1.9	500	$\pm 2.5\%$	---	0.5	SOP7
6	SD6701DC/ SD7701DC	24 (<260mA)	100V 240mA	176-265	Non-isolated, single winding	Int. MOS	7.5	500	$\pm 2.5\%$	---	0.5	DIP7
7	SD6702DC/ SD7702DC	40 (<300mA)	130V 280mA	176-265	Non-isolated, single winding	Int. MOS	5	500	$\pm 2.5\%$	---	0.5	DIP7
8	SD6703D	45 (<350mA)	150V 300mA	176-265	Non-isolated, single winding	Int. MOS	2.8	500	$\pm 2.5\%$	---	0.5	DIP7
9	SD6704D	50 (<400mA)	165V 300mA	176-265	Non-isolated, single winding	Int. MOS	1.9	500	$\pm 2.5\%$	---	0.5	DIP7
10	SD6792S	30 (<280mA)	126V 240mA	176-265	Non-isolated, single winding	Int. MOS	5	500	$\pm 2.5\%$	PWM/ADJ	0.5	SOP7
11	SD6794S	40 (<360mA)	120V 330mA	176-265	Non-isolated, single winding	Int. MOS	1.9	500	$\pm 2.5\%$	PWM/ADJ	0.5	SOP7

# Non-isolated Constant Current Driver IC Integrated With MOS

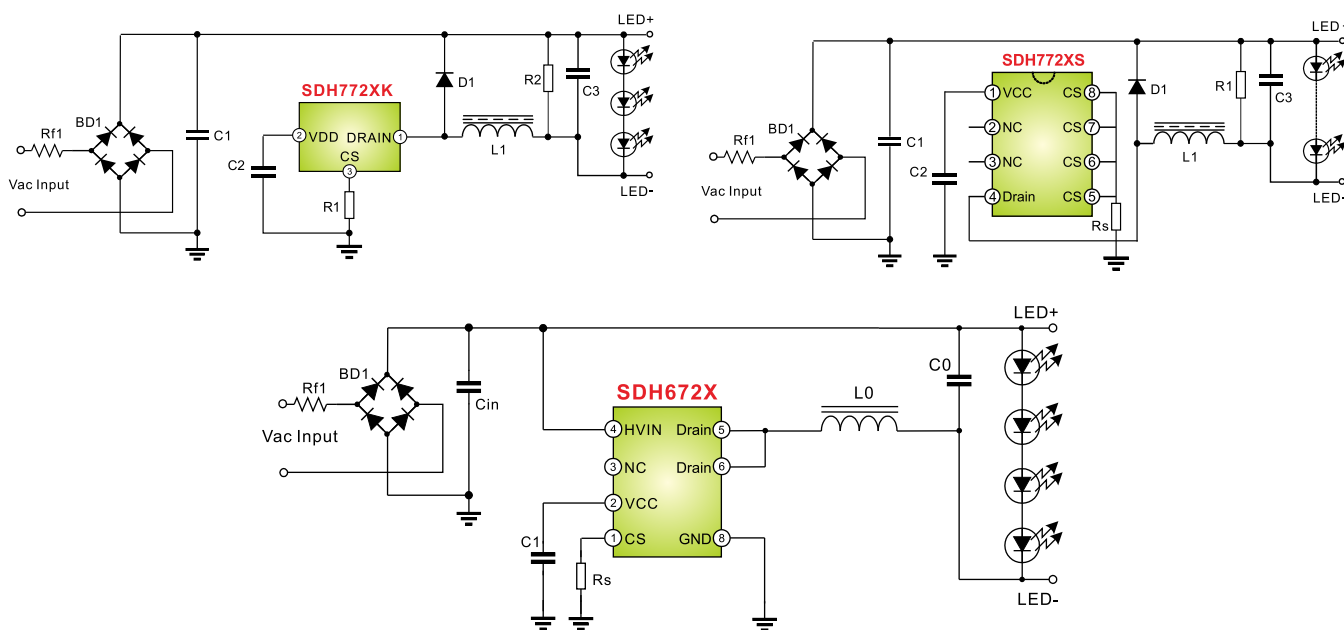
## Key Features

- ⊙ Non-isolated buck topology
- ⊙ Integrated with 500V MOS
- ⊙ Integrated high-voltage startup circuit, fast startup without any startup resistor
- ⊙ Good line and load regulation:  $\pm 3\%$
- ⊙ High efficiency
- ⊙ High constant current accuracy
- ⊙ Output open circuit and short circuit protections
- ⊙ Current reduction at high temperature to avoid flickering
- ⊙ Auxiliary winding not needed

## Test Data



## Typical Application Circuit



## Characteristics



No.	Part No.	Max. output power (W) (or current)	Typical application	Input voltage(V)	Topology	Power Switch	BV (V)	Current accuracy	Dimming or not	Power factor	Package
1	SDH7721K	5 (<80mA)	60V 80mA	176-265	Non-isolated, single winding	Int. MOS	500	$\pm 3.0\%$	---	0.5	SOT23
2	SDH7721S	6 (<80mA)	70V 80mA	176-265	Non-isolated, single winding	Int. MOS	500	$\pm 3.0\%$	---	0.5	SOP8
3	SDH7722K	7 (<100mA)	70V 100mA	176-265	Non-isolated, single winding	Int. MOS	500	$\pm 3.0\%$	---	0.5	SOT23
4	SDH7722S	9 (<100mA)	90V 100mA	176-265	Non-isolated, single winding	Int. MOS	500	$\pm 3.0\%$	---	0.5	SOP8
5	SDH7723K	12 (<150mA)	120V 100mA	176-265	Non-isolated, single winding	Int. MOS	500	$\pm 3.0\%$	---	0.5	SOT23
6	SDH7723S	15 (<150mA)	120V 120mA	176-265	Non-isolated, single winding	Int. MOS	500	$\pm 3.0\%$	---	0.5	SOP8

# High PFC Isolated Constant Current Driver IC

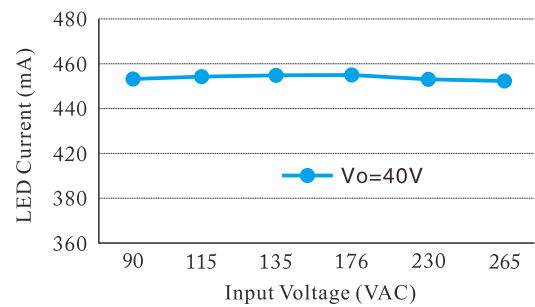
## Key Features

The first product with built-in MOS in industry for isolated application with 90-265VAC input & 22W output

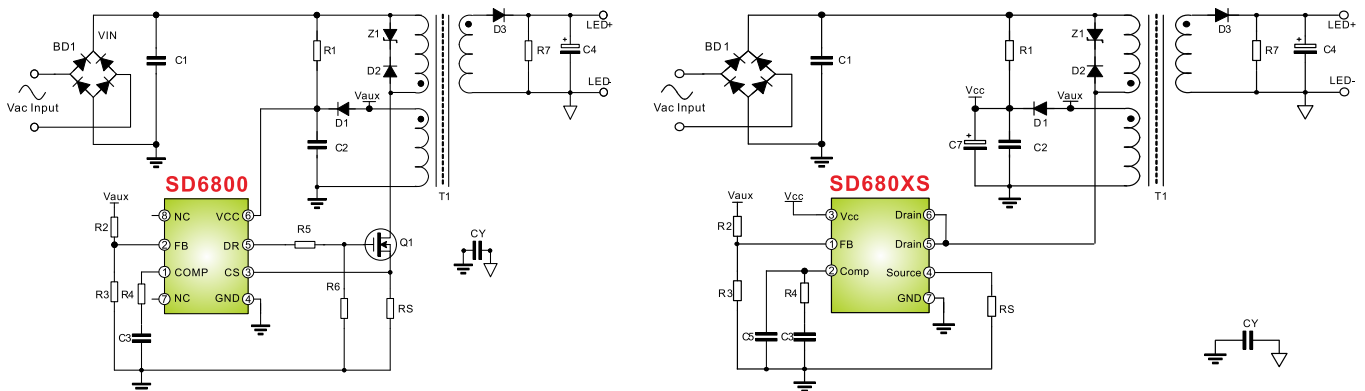


- PSR APFC , PF>0.9 , THD<15%
- Patented constant current technology, ensuring batch-to-batch consistency of  $\pm 2.5\%$
- Small effects of temperature variation on output current
- LED open circuit protection
- LED short circuit protection
- SD6802S/04S/07D: VCC voltage range: 9 ~ 24.5V, compatible with wide range output

## Test Data



## Typical Application Circuit



## Characteristics

No.	Part No.	Max. output power (W)	Typical application	Input voltage(V)	Topology	Power Switch	MOS Rdson( $\Omega$ )	BV (V)	Current accuracy	Dimming or not	Power factor	Package
1	SD6800	30	45V 450mA	90~265	PSR APFC	Ext. MOS	/	/	$\pm 2.5\%$	---	0.9	SOP8
2	SD6800B/BC	60	40V 1500mA	90~265	PSR APFC	Ext. MOS	/	/	$\pm 2.5\%$	---	0.9	SOP8
3	SD6802S/SC	7	7*1W	90~265	PSR APFC	Int. MOS	4.4	650	$\pm 2.5\%$	---	0.9	SOP7
4	SD6804AS/ASC	12	12*1W	90~265	PSR APFC	Int. MOS	1.95	650	$\pm 2.5\%$	---	0.9	SOP7
5	SD6804S/SC	15	15*1W	90~265	PSR APFC	Int. MOS	1.8	600	$\pm 2.5\%$	---	0.9	SOP7
6	SD6804D/DC	18	18*1W	90~265	PSR APFC	Int. MOS	2.3	650	$\pm 2.5\%$	---	0.9	DIP7
7	SD6807D/DC	22	42V 450mA	90~265	PSR APFC	Int. MOS	1.1	650	$\pm 2.5\%$	---	0.9	DIP7
8	SDH6812S	7	7*1W	90~265	PSR APFC	Int. MOS	4.4	650	$\pm 3.0\%$	---	0.9	SOP7
9	SDH6814S	15	12*1W	90~265	PSR APFC	Int. MOS	1.95	650	$\pm 3.0\%$	---	0.9	SOP7
10	SDH6817D	22	42V 450mA	90~265	PSR APFC	Int. MOS	1.1	650	$\pm 3.0\%$	---	0.9	DIP7
11	SA7527S	60	36V 1500mA	90~265	Isolated flyback APFC	Ext. MOS	/	/	/	---	0.9	SOP8
12	SD7530S	60	36V 1500mA	90~265	Isolated flyback APFC with short circuit protection	Ext. MOS	/	/	/	---	0.9	SOP8

Note: 1) For products with internal MOS, the output power can be increased by 10%-20% when the input voltage is in range of 176-265VAC;  
2) The SD6807D is the first product with internal MOS in industry for isolated application with 90-265VAC input and 22W output;  
3) Version C is the upgraded IC of SD680X, it supports all the functions of SD680X as well as more functions and features.



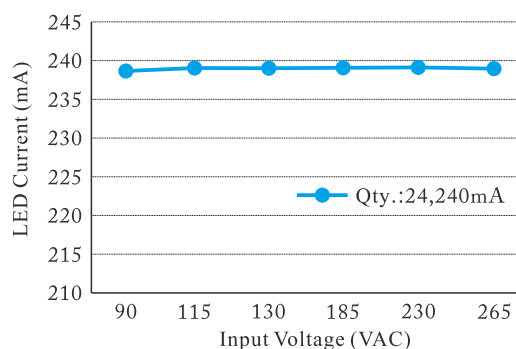
# High PFC Non-isolated Constant Current Driver IC

## Key Features

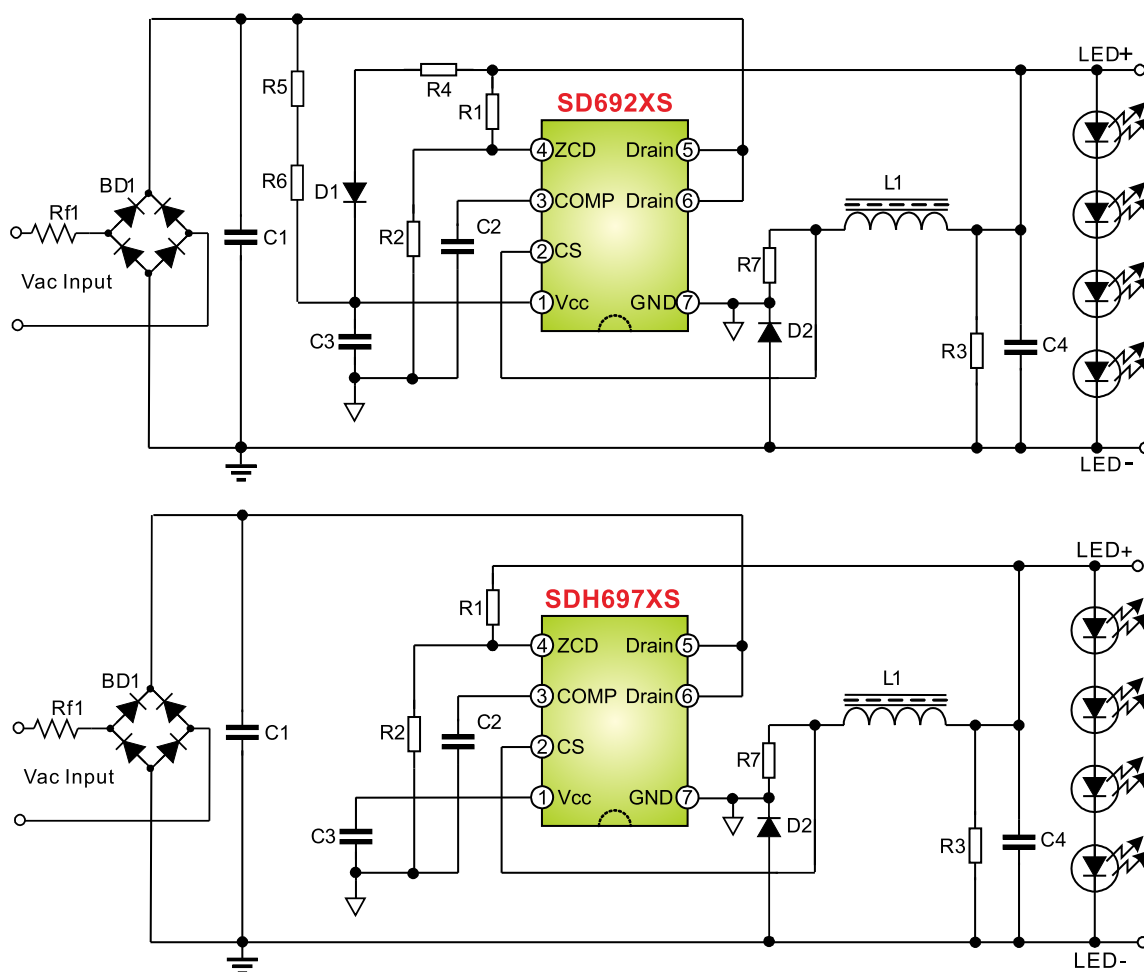
The first product with built-in MOS in industry for non-isolated APFC application with 90-265VAC input & 18W output.

- ⊙ Non-isolated buck topology, active PFC
- ⊙ Line and load regulation:  $\pm 2\%$
- ⊙ High power factor,  $PF > 0.9$
- ⊙ Batch-to-batch consistency:  $\pm 1.5\%$ , independent of inductance variation
- ⊙ VCC overvoltage protection and UVLO
- ⊙ Output open circuit and short circuit protections
- ⊙ SD692X: Single winding solution
- ⊙ SD674X: full voltage  $PF > 0.7$ , self-power technology
- ⊙ SDH697X: High-voltage direct power supply solution, using the least components.

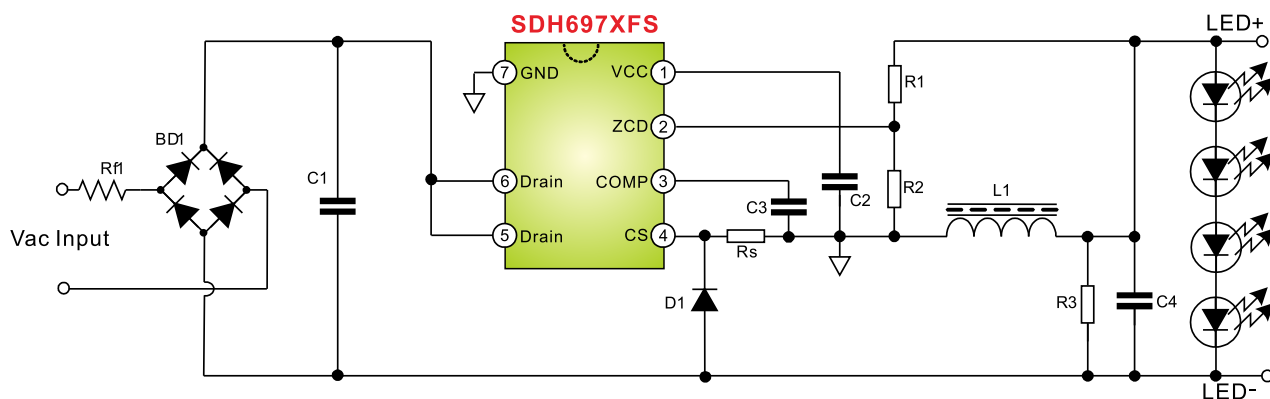
## Test Data



## Typical Application Circuit



# High PFC Non-isolated Constant Current Driver IC



## Characteristics

No.	Part No.	Max. output power (W) (or current)	Typical application	Input voltage (VAC)	Topology	Power Switch	MOS R <sub>dson</sub> (Ω)	BV (V)	Current accuracy	Dimming or not	Power factor	Package
1	SD6900	40	80V 240mA	90-265	Non-isolated APFC	Ext. MOS	/	/	± 1.5%	---	0.9	SOT23-6
2	SD6901S	9 (<200mA)	48V 160mA	90-265	Non-isolated APFC	Int. MOS	7.3	600	± 1.5%	---	0.9	SOP7
3	SD6902S	12 (<350mA)	48V 200mA	90-265	Non-isolated APFC	Int. MOS	4	600	± 1.5%	---	0.9	SOP7
4	SD6904S	18 (<500mA)	80V 240mA	90-265	Non-isolated APFC	Int. MOS	1.8	600	± 1.5%	---	0.9	SOP7
5	SD6904D	24 (<500mA)	80V 300mA	90-265	Non-isolated APFC	Int. MOS	/	600	± 1.5%	---	0.9	DIP7
6	SD6920	40	80V 240mA	90-265	Non-isolated APFC	Ext. MOS	/	/	± 1.5%	---	0.9	SOT23-6
7	SD6921S	9 (<200mA)	48V 160mA	90-265	Non-isolated APFC	Int. MOS	7.3	600	± 1.5%	---	0.9	SOP7
8	SD6922AS	12 (<350mA)	48V 200mA	90-265	Non-isolated APFC	Int. MOS	4.5	500	± 1.5%	---	0.9	SOP7
9	SD6922S	12 (<350mA)	48V 200mA	90-265	Non-isolated APFC	Int. MOS	4	600	± 1.5%	---	0.9	SOP7
10	SD6924AS	18 (<500mA)	80V 240mA	90-265	Non-isolated APFC	Int. MOS	2	500	± 1.5%	---	0.9	SOP7
11	SD6924S	18 (<500mA)	80V 240mA	90-265	Non-isolated APFC	Int. MOS	1.8	600	± 1.5%	---	0.9	SOP7
12	SD6924D	24 (<500mA)	80V 300mA	90-265	Non-isolated APFC	Int. MOS	1.9	600	± 1.5%	---	0.9	DIP7
13	SDH6971S	9 (<200mA)	48V 160mA	90-265	Non-isolated APFC	Int. MOS	5.8	550	± 1.5%	---	0.9	SOP7
14	SDH6971FS	9 (<200mA)	48V 160mA	90-265	Non-isolated APFC	Int. MOS	5.8	550	± 1.5%	---	0.9	SOP7
15	SDH6972S	12 (<350mA)	48V 200mA	90-265	Non-isolated APFC	Int. MOS	4	550	± 1.5%	---	0.9	SOP7
16	SDH6972FS	12 (<350mA)	48V 200mA	90-265	Non-isolated APFC	Int. MOS	4	550	± 1.5%	---	0.9	SOP7
17	SDH6974S	18 (<500mA)	80V 240mA	90-265	Non-isolated APFC	Int. MOS	1.8	550	± 1.5%	---	0.9	SOP7
18	SD6741S	9 (<200mA)	40V 160mA	90-265	Non-isolated APFC	Int. MOS	7.5	500	± 2.5%	---	0.7	SOP7
19	SD6742S	12 (<350mA)	60V 200mA	90-265	Non-isolated APFC	Int. MOS	5	500	± 2.5%	---	0.7	SOP7

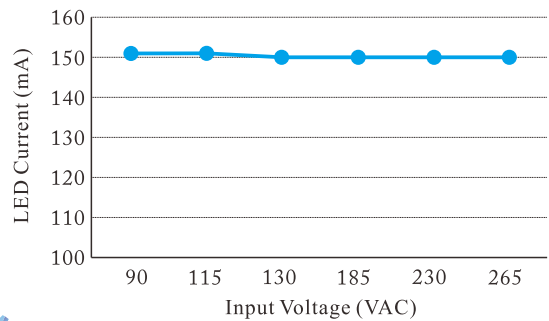
Note: SD6904S is the first product (SOP package) with built-in MOS in industry for non-isolated APFC application with 90-265VAC input & 18W output.

# High PFC Non-isolated Buck-boost Constant Current Driver IC

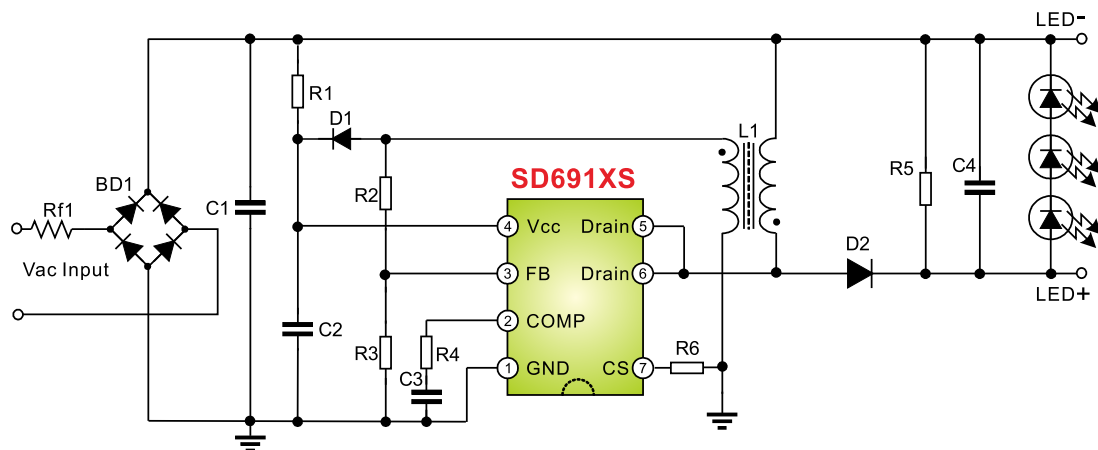
## Key Features

- ⊙ Non-isolated buck-boost topology
- ⊙ BCM mode, easily passing EMI testing
- ⊙ Line and load regulation:  $\pm 2\%$
- ⊙ High power factor,  $PF > 0.95$ ,  $THD < 15\%$
- ⊙ LED open circuit protection
- ⊙ LED short circuit protection

## Test Data



## Typical Application Circuit



## Characteristics

No.	Part No.	Max. output power (W)	Typical application	Input voltage (VAC)	Topology	Power Switch	MOS Rdson( $\Omega$ )	BV (V)	Current accuracy	Dimming or not	Power factor	Package
1	SD6910A	40	150V200mA	90-265	Non-isolated buck-boost APFC	Ext. MOS	/	/	$\pm 3.0\%$	---	0.95	SOP8
2	SD6912S	9	72V120mA	90-265	Non-isolated buck-boost APFC	Int. MOS	4.4	650	$\pm 3.0\%$	---	0.95	SOP7
3	SD6914S	15	100V150mA	90-265	Non-isolated buck-boost APFC	Int. MOS	1.8	650	$\pm 3.0\%$	---	0.95	SOP7

# SCR Dimming Driver IC

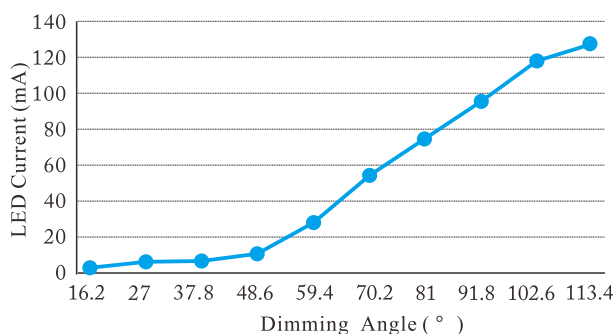
## Key Features

Integrated with EDMOS, built-in high-voltage startup circuit and power MOS, features cost-effective

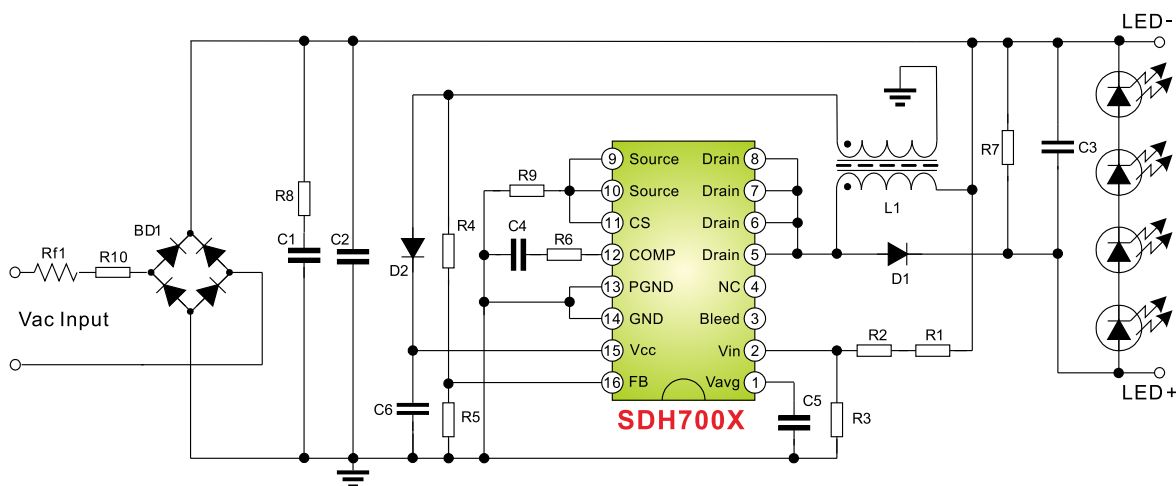
- ⊙ Non-isolated buck-boost topology
- ⊙ Active PFC
- ⊙ Built-in high-voltage startup circuit, peripheral cost saving
- ⊙ Built-in power MOS, meeting small volume requirement
- ⊙ Closed loop control mode with good line and load regulation
- ⊙ VCC high-voltage power supply at minimum dimming angle
- ⊙ Good compatibility, compatible with most dimmers



## Test Data



## Typical Application Circuit



## Characteristics



No.	Part No.	Max. output power (W)	Typical application	Input voltage (VAC)	Topology	Power Switch	MOS Rdson(Ω)	BV (V)	Current accuracy	Dimming or not	Power factor	Package
1	SDH7002	12W	70V130mA	120/230	Non-isolated buck-boost APFC	Int. MOS	4.4	650	± 3.0%	Triac	0.9	SOP16
2	SDH7003A	15W	80V150mA	120/230	Non-isolated buck-boost APFC	Int. MOS	4	650	± 3.0%	Triac	0.9	SOP16

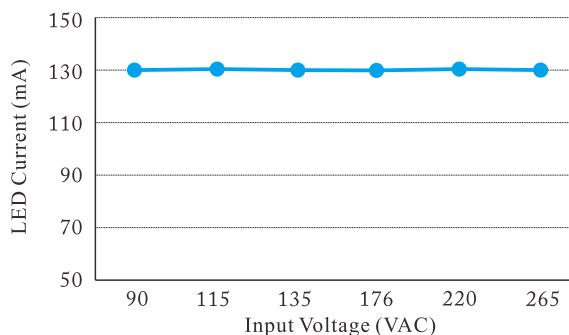
Note: SDH700X is integrated with EDMOS, has built-in high-voltage startup circuit and power MOS, features cost-effective.

# DLT & Smart Dimming Driver IC

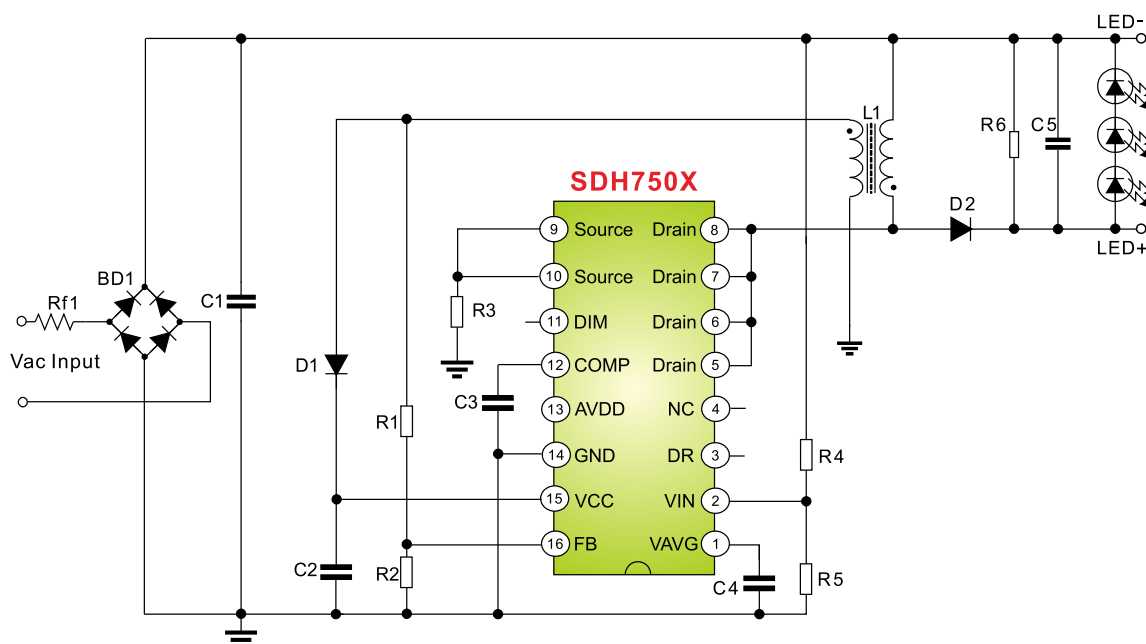
## Key Features

- ⊙ DLT dimming and smart dimming supported
- ⊙ Non-isolated buck-boost topology
- ⊙ Active PFC
- ⊙ Built-in high-voltage startup circuit, peripheral cost saving
- ⊙ Built-in power MOS, meeting small volume requirement
- ⊙ Closed loop control mode with line and load regulation of  $\pm 2\%$
- ⊙ Flicker-free at minimum dimming angle

## Test Data



## Typical Application Circuit



## Characteristics



No.	Part No.	Max. output power (W)	Typical application	Input voltage (VAC)	Topology	Power Switch	MOS Rdson(Ω)	BV (V)	Current accuracy	Dimming or not	Power factor	Package
1	SDH7502	9	70V130mA	90-265	Non-isolated buck-boost APFC	Int. MOS	4.4	650	$\pm 3.0\%$	DLT&Smart dimming	0.9	SOP16
2	SDH7503	14	90V150mA	90-265	Non-isolated buck-boost APFC	Int. MOS	/	650	$\pm 3.0\%$	DLT&Smart dimming	0.9	SOP16

# Diming & Color Changeable/2.4G/Isolated Solution

## Key Features

- Simple system peripherals
- Wireless remote control for multi lamps
- Low PF



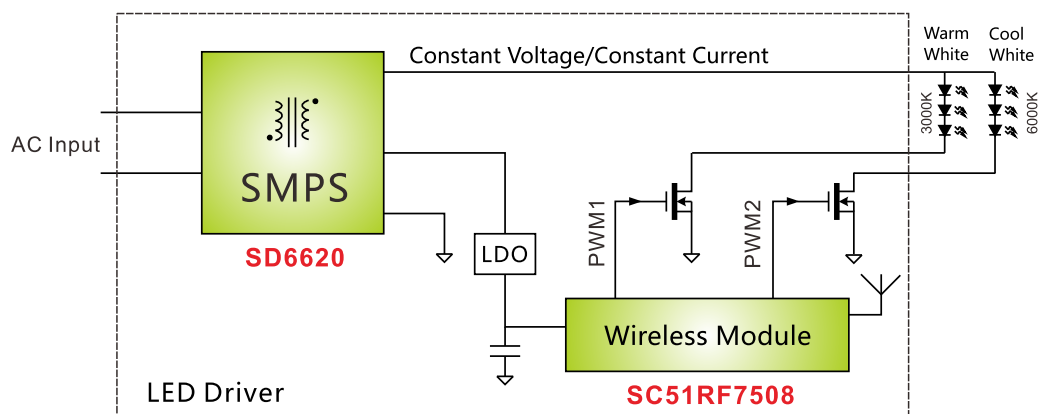
## Application and Specification

- Input Voltage : 90-265V
- Output Power : 20W
- Application : Ceiling lamps, Lamp panel

## Master Chip

- SD6620
- SC51RF7508

## Typical Application Circuit



# Diming & Color Changeable/2.4G/Non-isolated Solution

## Key Features

- ⊙ PF>0.9
- ⊙ Diming and color changeable
- ⊙ Compatible with ZIGBEE, WIFI, and BLE control
- ⊙ No current overshoot for LED lamp



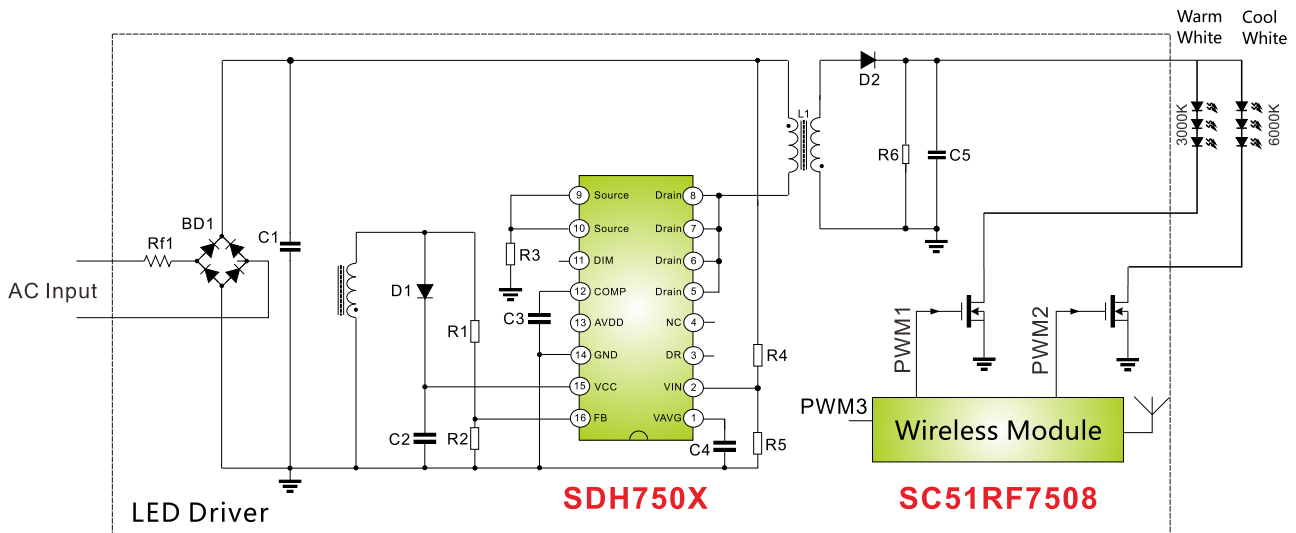
## Application and Specification

- ⊙ Input Voltage : 90-265V
- ⊙ Output Power : 15W
- ⊙ Application : Bulb lamp, Ceiling lamp

## Master Chip

- ⊙ SDH750X
- ⊙ SC51RF7508

## Typical Application Circuit



# High-end/Diming & Color Changeable/Isolated Solution

## Key Features

- ⊙ PF>0.9
- ⊙ Compatible with ZIGBEE, BLE, and WIFI control
- ⊙ Compatible with sensors
- ⊙ No LED flicker or current overshoot



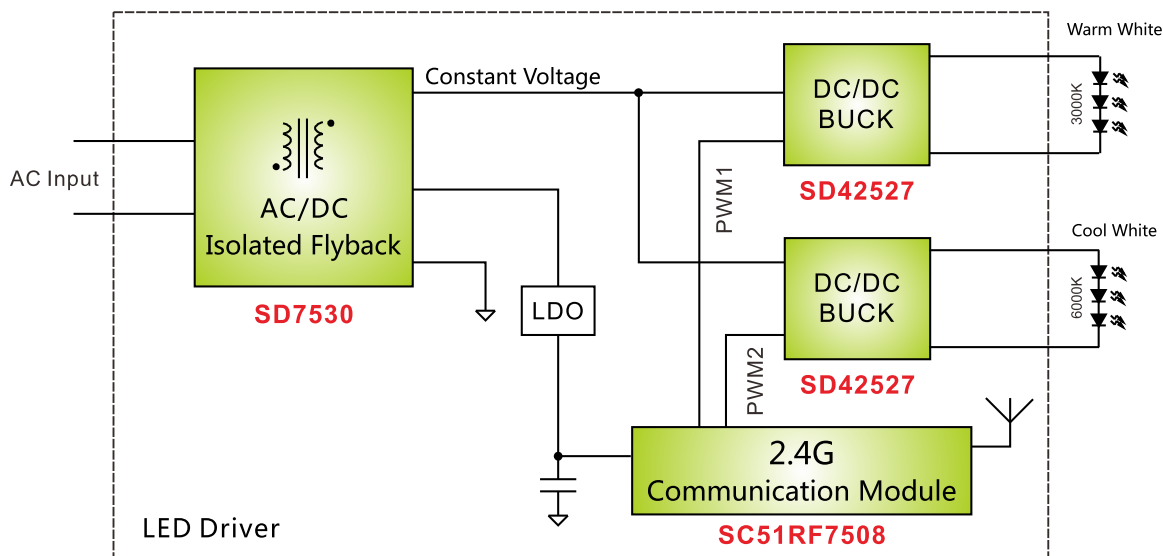
## Application and Specification

- ⊙ Input Voltage : 90-265V
- ⊙ Output Power : 60W
- ⊙ Application : High power ceiling lamps,  
Lamp panel

## Master Chip

- ⊙ SD7530
- ⊙ SD42527
- ⊙ SC51RF7508

## Typical Application Circuit





# Infrared+Switch/Dimming&Color Changeable/Non-isolated Solution

## Key Features

- ⊙ No flicker
- ⊙ Universal code matching
- ⊙ Segmented color changing
- ⊙ Low system cost and easy to use



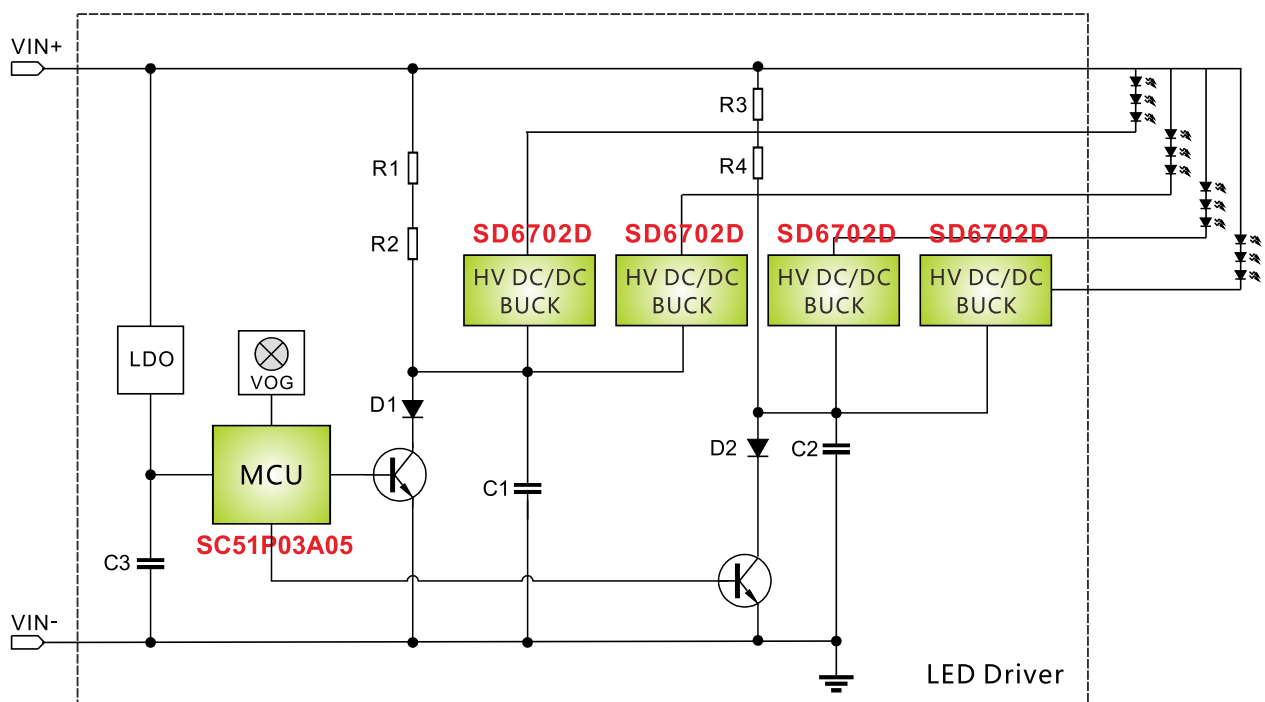
## Application and Specification

- ⊙ Input Voltage : 180-265V
- ⊙ Output Power : 144-200W
- ⊙ Application : Ceiling lamps, Lamp panel

## Master Chip

- ⊙ SC51P03A05
- ⊙ SD6702D

## Typical Application Circuit





Ultra-low standby power with patented high-voltage startup technology;  
Meets DOE Level VI via an optimized QR control;  
Energy-saving.

## Silan AC-DC RoadMap

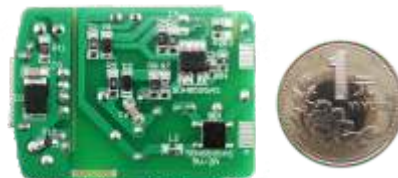
	Internal MOSFET					Internal BJT	External MOSFET or BJT
SSR	SD4840	SD6863	SD6832	SDH6963	SDH6963Q	SD6830	SD4872R
	SD4841	SD6864	SD6834	SDH6964	SDH6964Q		SD4873A
	SD4842		SD6834B	SDH6965	SDH6965Q		SD4873Q
	SD4843		SD6835				SDH4875Q
	SD4844						
PSR	SD8583S		SDH8592AS			SD6952DS	SD6953A/B
	SD8584S	SDH8594S	SDH8593AS			SD6952CS	SD8532S
	SD8585S	SDH8595S	SDH8594AS			SD6952AS/S	SD8520
			SDH8595AS	SDH8595AD			
Non-isolation & Buck	SDH8302	SDH8302S					
	SDH8303						



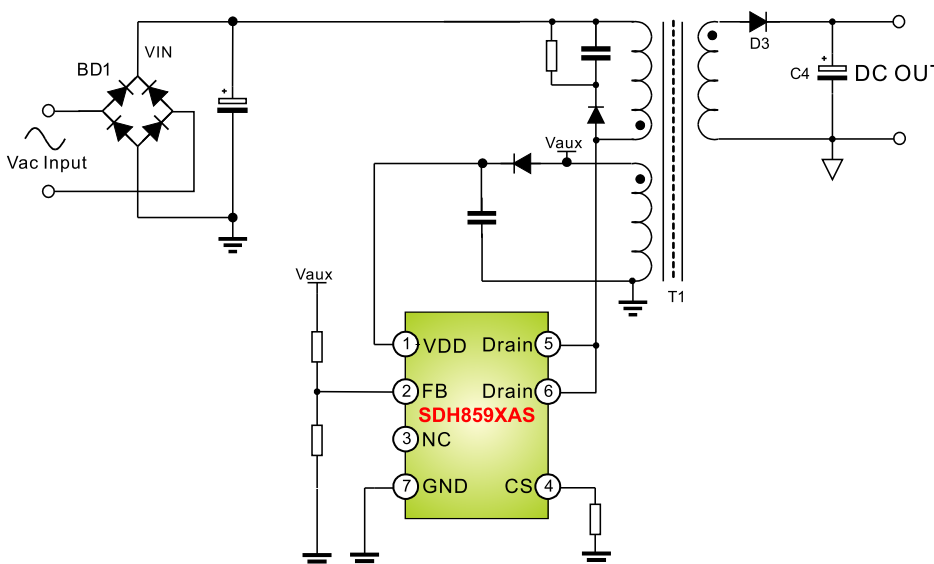
# PSR IC

## Key Features → SOP7 package for space-saving

- ⊙ PSR solutions for DoE level VI and CoC V5 Tier2
- ⊙ Constant voltage/constant current output
- ⊙ High-voltage startup to reduce standby power dissipation
- ⊙ Adjustable cable drop compensation
- ⊙ Optimized dynamic response
- ⊙ Protection for no connection/ground connection of each pin
- ⊙ Integrated protections of under voltage lock (UVLO), over voltage (OVP), over load (OLP) and over temperature (OTP)
- ⊙ Package: SOP7



## Typical Application Circuit



## Characteristics

No.	Part No.	Output power	Power Switch	Rdson	Standby power	CV	CC	OLP	OVP (VDD)	OTP	Cable-drop compensation	Peak current compensation	Package
1	SD6952AS/S	5W	Int. BJT	—	50mW	±5%	±5%	A	27V	145	Y	Y	SOP7
2	SD6953A/B	7W	Ext. BJT	—	50mW	±5%	±5%	A	27V	145	Y	Y	SOT23-6L
3	SD8583S	8W	Int. MOS	4.3Ω	75mW	±5%	±5%	A	27V	145	Y	Y	SOP7
4	SD8584S	8W	Int. MOS	2.5Ω	75mW	±5%	±5%	A	27V	145	Y	Y	SOP7
5	SD8585S	12W	Int. MOS	1.6Ω	75mW	±5%	±5%	A	27V	145	Y	Y	SOP7
6	SD8520	18W	Ext. MOS	—	100mW	±5%	±5%	A	27V	145	Y	Y	SOT23-6L
7	SDH8594S	8W	Int. MOS	2.5Ω	60mW	±5%	±5%	A	27V	145	Y	Y	SOP7
8	SDH8595S	12W	Int. MOS	1.6Ω	60mW	±5%	±5%	A	27V	145	Y	Y	SOP7
9	SDH8592AS	5W	Int. MOS	7Ω	30mW	±5%	±5%	A	27V	145	Y	Y	SOP7
10	SDH8593AS	8W	Int. MOS	3.8Ω	40mW	±5%	±5%	A	27V	145	Y	Y	SOP7
11	SDH8594AS	10W	Int. MOS	2.5Ω	50mW	±5%	±5%	A	27V	145	Y	Y	SOP7
12	SDH8595AS	12W	Int. MOS	1.6Ω	50mW	±5%	±5%	A	27V	145	Y	Y	SOP7
13	SDH8595AD	12W	Int. MOS	3.4Ω	50mW	±5%	±5%	A	27V	145	Y	Y	DIP8

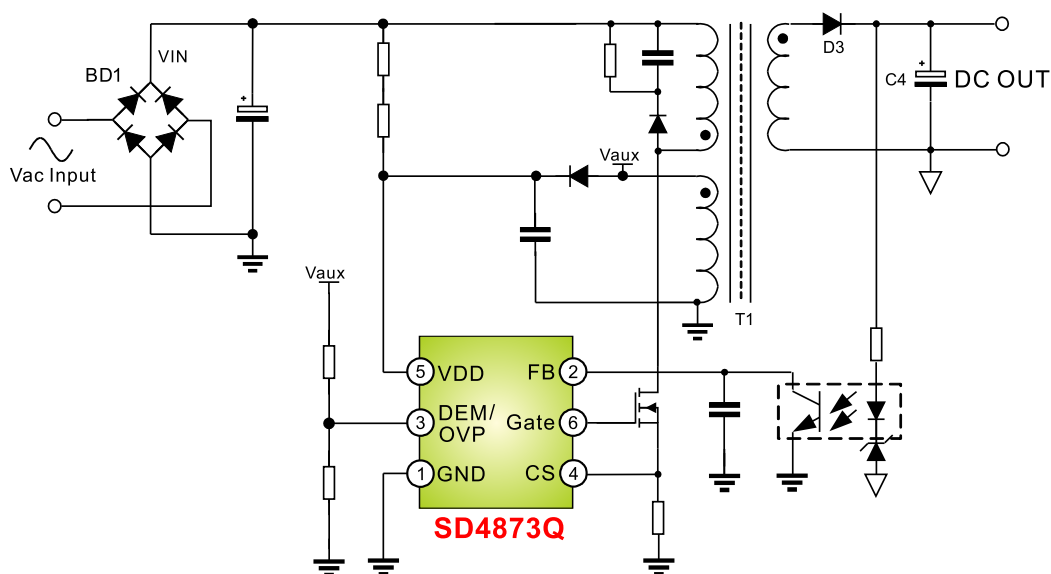
# SSR PWM IC

## Key Features

- ⊙ PWM+PFM+QR mode for DoE level VI and CoC V5 Tier2
- ⊙ 65W peak output power with external MOSFET
- ⊙ Adjustable output maximum voltage
- ⊙ Optimized operating frequency at variant loads for high average efficiency
- ⊙ Patented valley lock technology at QR mode
- ⊙ Patented peak output power compensation at high/low input voltage
- ⊙ Integrated protections of under voltage lock (UVLO), over voltage (OVP), over load (OLP) and over temperature (OTP)
- ⊙ Package: SOT23-6L



## Typical Application Circuit



## Characteristics

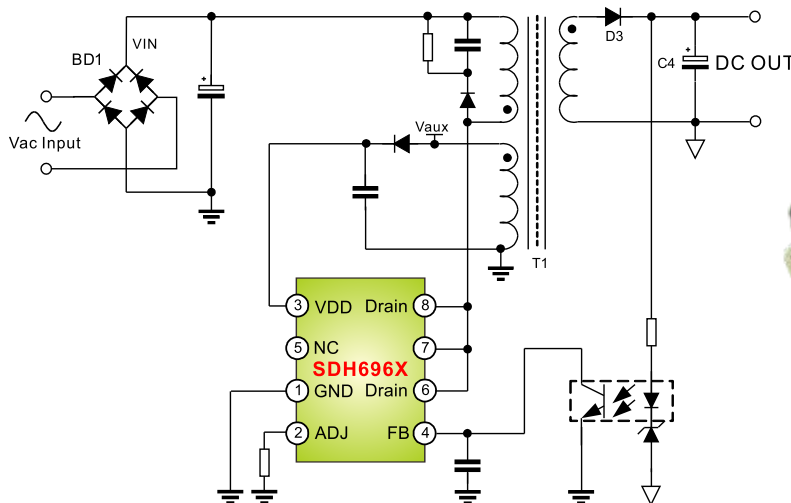
No.	Part No.	Max. output power (full voltage /adapter)	Operating frequency	OVP (VDD)	Frequency Jitter	Standby power	B/O	Soft start up	OTP	OLP/ SCP	Peak current compensation	Package
1	SD4872R	65W	22-65KHz	27V	Y	100mW	Y	Y	Y	A	Y	SOP8
2	SD4873A	65W	22-65KHz	27V	Y	75mW	Option	Y	Y	A	Y	SOT23-6L
3	SD4873Q	65W	23-69KHz	27V	Y	75mW	N	Y	Y	A	Y	SOT23-6L

# SSR Combo IC

## Key Features

- ⊙ PWM+PFM mode for DoE level VI and CoC V5 Tier2
- ⊙ 12-24W output power with built-in MOSFET
- ⊙ High-voltage startup and burst mode to lower standby power dissipation
- ⊙ Built-in primary current sensing resistor to reduce power dissipation
- ⊙ Optimized operating frequency at variant loads for high average efficiency
- ⊙ Excellent consistency of peak output power with different IC temperature
- ⊙ Patented peak output power compensation at high/low line voltage
- ⊙ Integrated protections of under voltage lock (UVLO), over voltage (OVP), over load (OLP) and over temperature (OTP)
- ⊙ Package: DIP8

## Typical Application Circuit

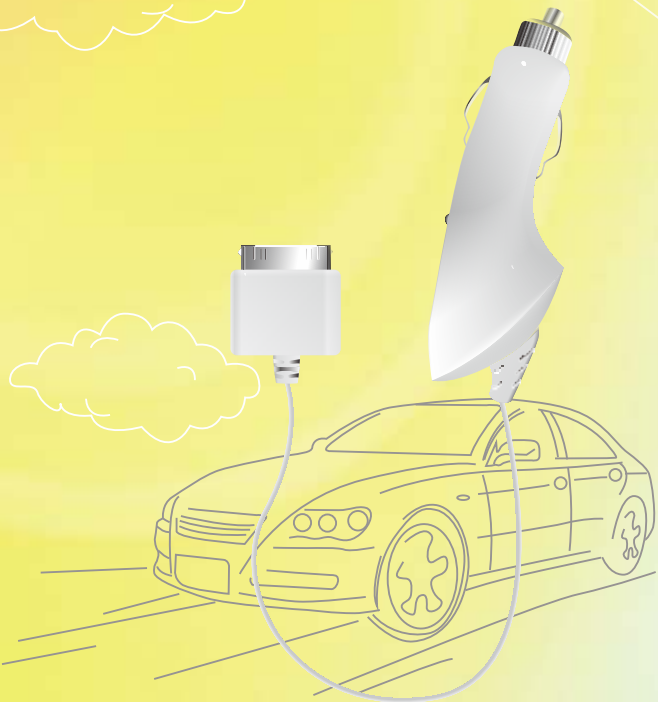


## Characteristics

No.	Part No.	Max. power (full voltage/adaptor)	Rdson	Ipeak	Operating frequency	OVP (VDD)	Frequency Jitter	OTP	OLP/SCP	Peak current compensation	Package
1	SD4841	12W	8 Ω	0.75A	67kHz	19V	Y	Y	Y	N	DIP8
2	SD4843	15W	4 Ω	1.2A	67kHz	19V	Y	Y	Y	N	DIP8
3	SD4844	18W	3 Ω	1.5A	67kHz	19V	Y	Y	Y	N	DIP8
4	SD6830	12W	BJT	—	60kHz	12V	Y	Y	A	Y	DIP8
5	SD6863	12W	3.4 Ω	1.2A	24–67kHz	24.5V	Y	Y	A	Y	DIP8
6	SD6864	18W	2.5 Ω	1.5A	24–67kHz	24.5V	Y	Y	A	Y	DIP8
7	SD6832	8W	10 Ω	0.75A	24–67kHz	24.5V	Y	Y	A	Y	DIP8
8	SD6834	12W	3.4 Ω	1.2A	24–67kHz	24.5V	Y	Y	A	Y	DIP8
9	SD6834B	18W	2.5 Ω	1.5A	24–67kHz	24.5V	Y	Y	A	Y	DIP8
10	SD6835	24W	1.6 Ω	2.2A	24–67kHz	26V	Y	Y	A	Y	DIP8
11	SDH6963	12W	3.4 Ω	1.2A	24–65kHz	24.5V	Y	Y	A	Y	DIP8
12	SDH6964	18W	2.5 Ω	1.5A	24–65kHz	24.5V	Y	Y	A	Y	DIP8
13	SDH6965	24W	1.6 Ω	2.2A	24–65kHz	24.5V	Y	Y	A	Y	DIP8
14	SDH6963Q	12W	3.4 Ω	1.2A	23–69kHz	24.5V	N	Y	A	Y	DIP8
15	SDH6964Q	18W	2.5 Ω	1.5A	23–69kHz	24.5V	N	Y	A	Y	DIP8
16	SDH6965Q	24W	1.6 Ω	2.2A	23–69kHz	24.5V	N	Y	A	Y	DIP8

# Car Charger DC-DC Products

Silan provides complete car charger solutions with different output current specifications, adopts patented current sensing technology and advanced BCD process to realize high accuracy CV/CC control and high efficiency, features high accuracy, less components, simple system topology, etc., comprehensive protection functions for better reliability, including short circuit protection, over current protection, and over temperature protection.



## Silan Car Charger RoadMap

Providing complete car charger solutions with different output current specifications.

Output Current	Internal MOSFET		External MOSFET
	Non-sync	Sync	
1.2A	SD45214RSA		
1.5A	SD45215SA		
2.1A	SD45216JA		
	SD45230RSA		
2.4A	SD45230RJA		
4.8A			SD45237

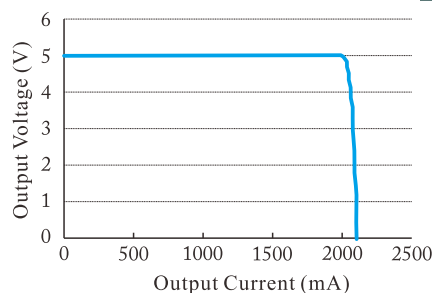
# Car Charger ICs

## Key Features

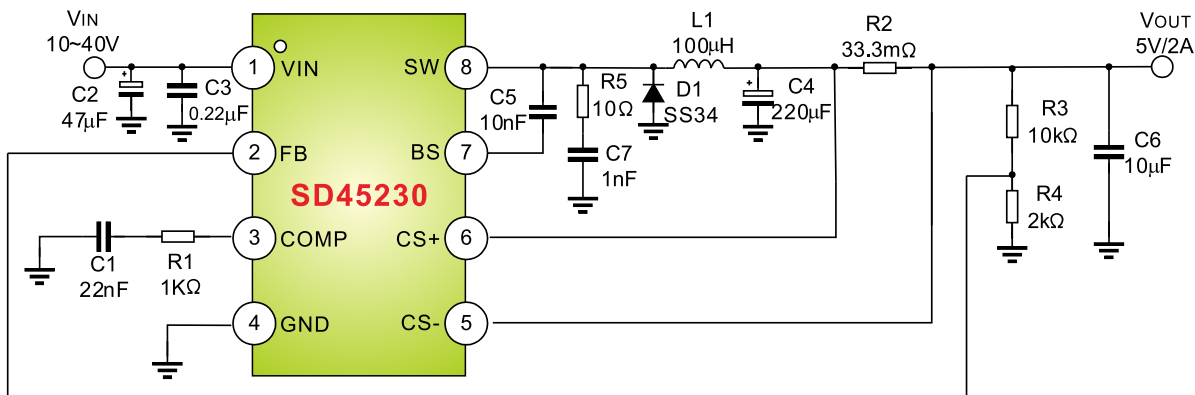
- ⊙ Max. operating voltage up to 40V
- ⊙ Internal low Rdson MOSFET
- ⊙ Patented OCP technology
- ⊙ Patented line loss output compensation technology
- ⊙ Patented CC/CV loop controlling technology
- ⊙ Integrated protections of under voltage lock (UVLO), over voltage (OVP) and over temperature (OTP)



## Test Data



## Typical Application Circuit



## Characteristics

No.	Part No.	Max. output current	MOSFET	Rdson	Operating frequency	Frequency Jitter	OTP	OLP/SCP Method	Cable-drop compensation	Package
1	SD45214RSA	1A	Int. MOS	0.15Ω	120KHz	Y	Y	Auto Recovery	Y	SOP8
2	SD45215SA	1.5A	Int. MOS	0.1Ω	120KHz	Y	Y	Latch	Y	SOP8
3	SD45216JA	2.1A	Int. MOS	0.1Ω	120KHz	Y	Y	Latch	Y	ESOP8
4	SD45230RSA	2.1A	Int. MOS	0.15Ω	120KHz	Y	Y	Auto Recovery	Y	SOP8
5	SD45230RJA	2.4A	Int. MOS	0.15Ω	120KHz	Y	Y	Auto Recovery	Y	ESOP8

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