



## Introduction of Silergy

Silergy Corp. is founded by a group of technology innovators and business leaders from Silicon Valley. Top design leaders average 20 years' experience. All founders have excellent track record in business, technology and engineering.

Our power IC products are made by the industry leading technology. They are widely used in automotive, computer, television and other devices.

Our products are intended to improve efficiency and to conserve the energy. We are committed to providing the industry leading performance with the affordable solution cost.



## Product Category

Step Down Regulator  
Step Up Regulator  
White LED Driver  
Special Function

Protection Switch  
Class D Amplifier  
LDO Regulator  
LED Lamp Driver

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## Selection Guide

Single Output Step Down Regulator									
Part Number	Function	V <sub>in</sub> (V)	I <sub>out</sub> (A)	F <sub>sw</sub> (MHz)	V <sub>REF</sub> (V)	HSFET Ron (mΩ )	LSFET Ron (mΩ )	Special Function	Package
SY8008A	Step Down Reg	2.5-5.5	0.6	1.5	0.6	300	250	Int SS/Comp	SOT23-5, TSOT23-5
SY8008B	Step Down Reg	2.5-5.5	1	1.5	0.6	250	200	Int SS/Comp	SOT23-5, TSOT23-5
SY8008C	Step Down Reg	2.5-5.5	1.2	1.5	0.6	200	150	Int SS/Comp	SOT23-5
SY8009A	Step Down Reg	3~5.5	1.5	1.5	0.6	180	120	Int SS/Comp	SOT23-5
SY8009B	Step Down Reg	3~5.5	2	1	0.6	100	80	Int SS/Comp	SOT23-6, SSOT23-6
SY8010	Step Down Reg	2.5-5.5	1	1.5	0.6	200	150	Int SS/Comp	DFN2x2-6
SY8010A	Step Down Reg	2.5-5.5	1	1.5	0.6	200	150	Int SS/Comp	QFN3x3-16
SY8010H	Step Down Reg	2.5-5.5	1.5	1.5	0.6	180	120	Int SS/Comp	DFN2x2-6
SY8010Z	Step Down Reg	2.5-5.5	1	1.5	0.6	200	150	Int SS/Comp	DFN2x2-6
SY8012A	Step Down Reg	3-5.5	2	1	0.6	150	120	Int SS/Comp, PG	SO8E
SY8012B	Step Down Reg	3-5.5	2.5	1	0.6	120	100	Int SS/Comp, PG	SO8E
SY8013	Step Down Reg	3-5.5	3	1	0.6	120	80	Int SS/Comp, PG	SO8E
SY8027	Step Down Reg	2.5-5.5	1.2	1.5	0.6	200	150	Int SS/Comp	SOT23-6
SY8030	Step Down Reg	2.5-5.5	1.5	2.25	0.6	200	150	Int SS/Comp, Ext Mode	DFN2x2-6
SY8031L	Step Down Reg	2.5-5.5	0.6	2.25	0.6	300	200	Int SS/Comp	SOT23-5
SY8031	Step Down Reg	2.5-5.5	1.2	2.25	0.6	200	150	Int SS/Comp	SOT23-5
SY8032	Step Down Reg	2.7-5.5	2	1	0.6	100	80	Int SS/Comp, PG	SOT23-6
SY8035	Step Down Reg	2.7-5.5	5	1	0.6	50	40	SS, Int Comp, PG	DFN3x3-10
SY8036	Step Down Reg	2.7-5.5	6	1	0.6	40	25	SS, Int Comp, PG	DFN3x3-10
SY8036H	Step Down Reg	2.7-5.5	6	1	0.6	36	28	SS, Int Comp, PG	DFN3x3-10
SY8037	Step Down Reg	2.7-5.5	6	1	0.6	40	25	2-bit VID, Int Comp, PG	DFN3x3-10
SY8040A	Step Down Reg	2.5~5.5	0.6	1.5	0.6	200	150	Int SS/Comp	nDFN2x2-6
SY8040B	Step Down Reg	2.5~5.5	1.5	1.5	0.6	200	150	Int SS/Comp	nDFN2x2-6
SY8041	Step Down Reg	2.5~5.5	1.5	1.5	0.6	200	150	Int SS/Comp, PG	DFN2x2-6
SY8058	Step Down Reg	2.5~5.5	2	2	0.6	150	100	Int SS/Comp, PG	QFN3x3-16
SY8063	Step Down Reg	2.7~5.5	3.5	1	0.6	85	65	Int SS/Comp, PG	DFN3x3-10
SY8063B	Step Down Reg	2.7~5.5	3.5	1	0.6	85	65	Int SS/Comp, PG, Output discharge at shutdown	DFN3x3-10
SY8065L	Step Down Reg	2.5~5.5	1	1.5	0.6	250	200	Int SS/Comp, PG	SOT23-6
SY8065	Step Down Reg	2.5-5.5	1.5	1.5	0.6	180	120	Int SS/Comp, PG	SOT23-6
SY8082P	Step Down Reg	3~5.5	2	1	0.6	130	100	Int SS/Comp, PG	SO8
SY8083P	Step Down Reg	3~5.5	3	1	0.6	100	70	Int SS/Comp, PG	SO8E
SY8100	Step Down Reg	4.5-16	1.2	0.5	0.6	350	150	Int SS/Comp, Pseudo-constant frequency	SOT23-6



### Single Output Step Down Regulator

Part Number	Function	Vin (V)	Iout (A)	Fsw (MHz)	VREF(V)	HSFET Ron (mΩ)	LSFET Ron (mΩ)	Special Function	Package
SY8101C	Step Down Reg	4~15	1.5	0.4	0.6	150	120	Int SS/Comp	SSOT23-6
SY8101D	Step Down Reg	4~15	2	0.4	0.6	120	90	Int SS/Comp	SSOT23-6
SY8152	Step Down Reg	4~15	2	0.4	0.6	150	100	Int SS/Comp	SO8
SY8153	Step Down Reg	4~15	3	0.4	0.6	120	80	Int SS/Comp	SO8E
SY8171H	Step Down Reg	4~15	2	0.7	0.6	120	90	Int SS/Comp	SSOT23-6
SY8172	Step Down Reg	4~15	2	0.7	0.6	150	100	Int SS/Comp	SO8
SY8200	Step Down Reg	6~24	0.6	0.5	0.6	420	200	Int SS/Comp, Pseudo-constant frequency	SOT23-6
SY8201	Step Down Reg	4.5-27	1	0.5	0.6	350	150	Int SS/Comp, Pseudo-constant frequency	SOT23-6
SY8805	Step Down Reg	3-5.5	5	1	0.6	35	15	Int SS/Comp	DFN2x2-8

### Single Output Special Function Regulator

Part Number	Function	Vin (V)	Iout (A)	Fsw (MHz)	VREF(V)	HSFET Ron (mΩ)	LSFET Ron (mΩ)	Special Function	Package
SY8007	Step Down Reg	2.5-5.5	1	1.5	0.6	250	200	Prog In Limit, No Rsen, 1.5A peak	SOT23-6
SY8017	Step Down Reg	2.5-5.5	1.5	1.5	0.6	180	120	Prog In Limit, No Rsen, 2A peak	DFN2x2-6

### White LED Driver

Part Number	Function	Vin (V)	Vsw,max (V)	Isw,max (A)	Fsw (MHz)	VREF (V)	HSFET Ron (mΩ)	LSFET Ron (mΩ)	Special Function	Package
SY8006	Step Down LED	2.5-5.5	6	2.4	1.5	0.1	200	150	Int SS/Comp	SOT23-5
SY7201	Step Up LED	2.8-30	30	2	1	0.2	NA	200	PWM/Linear Dimming	SOT23-6
SY7201A	Step Up LED	2.8-30	30	2	1	0.2	NA	200	PWM Dimming	SOT23-6
SY7220	Step Up LED	3-30	30	2	1	0.1	NA	500	PWM Dimming	SOT23-6
SY8702	Step Down LED	2.5-30	30	0.8	1	0.1	NA	150	PWM Dimming	SOT23-6
SY8703	Step Down LED	2.5-30	30	1.3	1	0.1	NA	200	PWM Dimming	SOT23-6
SY8710	Step Down LED	3-30	30	2	1	0.1	NA	200	PWM Dimming	SOT23-6

### Single Output Step Up Regulator

Part Number	Function	Vin (V)	Isw(A)	Vout,max(V)	Fsw (MHz)	VREF(V)	Main FET Ron (mΩ)	Sync FET Ron (mΩ)	Special Function	Package
SY7080	Step Up Reg	0.9-4	1.8	4	1.2	1.2	90	200	Output Disconnect	SOT23-6
SY7104	Step Up Reg	2-6	4	6	1	0.6	100	NA	EN	DFN3x3-10
SY7108	Step Up Reg	1.8-3.3	2	3.6	1	0.6	200	NA	EN	SOT23-6
SY7109	Step Up Reg	1.8-3.3	2	7	1	0.6	200	NA	EN	SOT23-6
SY7208	Step Up Reg	3-25	2	25	1	0.6	150	NA	EN	SOT23-6
SY7208A	Step Up Reg	3-25	2	25	1	0.6	150	NA	Comparable Pinout as SY7201	SOT23-6
SY7208B	Step Up Reg	3-25	2	25	1	1	150	NA	SS,7Vin, OVP	SOT23-6
SY7209	Step Up Reg	1.8-25	2	25	1	0.6	180	NA	EN	SOT23-6
SY7210	Step Up Reg	3-25	2	25	1	0.6	150	NA	Input Current Limit	SOT23-6
SY7290	Step Up Reg	2.5-7	2	7	1	1	200	NA	Accurate output current limiting.	SOT23-6



### Dual Output Regulator

Part Number	Function	Vin (V)	Iout (A)	Fsw (MHz)	V <sub>REF</sub> (V)	HSFET Ron (mΩ)	LSFET Ron (mΩ)	Special Function	Package
SY8020	Dual Step Down Reg	2.5-5.5	1	1.5	0.6	200	150	Dual 1A output Individual EN, Int SS/Comp	DFN3x3-12
SY8020H	Dual Step Down Reg	2.5~5.5	1.5	1.5	0.6	180	120	Dual 1.5A output Individual EN, Int SS/Comp	DFN3x3-12
SY8021	Dual Step Down Reg	3-5.5	1.5	1.5	0.6	200	150	Dual 1.5A output Individual EN, Int SS/Comp	SO8E
SY8021L	Dual Step Down Reg	3-5.5	1	1.5	0.6	250	200	Dual 1A output Individual EN, Int SS/Comp	SO8E
SY8022	Dual Step Down Reg	3~5.5	2.5	1	0.6	150	100	Dual 2.5A output Individual EN, Int SS/Comp	SO8E
SY8022L	Dual Step Down Reg	3~5.5	2	1.5	0.6	180	120	Dual 2A output Individual EN, Int SS/Comp	SO8E
SY8023	Dual Step Down Reg	3~5.5	3	1	0.6	110	80	Dual 3A output Individual EN, Int SS/Comp	SO8E
SY8092	Dual Step Down Reg	2.5-2.5	1	2	0.6	250	180	Dual 1A output Individual EN, Int SS/Comp	DFN3x3-10

### Protection Switch

Part Number	Package	Enable Logic	OC	OVP	No. of Channels	Vin(V)	Vout(V)	Iout(A)	Rds(mΩ)	Special Function
SY6288A	SOT23-5, SO8 MSOP8	H	Y	N	1	2.5~5.5	2.5~5.5	0.6	90	Output discharge at shutdown Reverse Blocking, OCB
SY6288B	SOT23-5, SO8 MSOP8	L	Y	N	1	2.5~5.5	2.5~5.5	0.6	80,90	
SY6288C	SOT23-5, SO8 MSOP8	H	Y	N	1	2.5~5.5	2.5~5.5	2	90	
SY6288D	SOT23-5, SO8 MSOP8	L	Y	N	1	2.5~5.5	2.5~5.5	2	80,90	
SY6280	SOT23-5	H	Y	N	1	2.4~5.5	2.4~5.5	0.4~2	80	Programmable current limit, reverse blocking output discharge at shutdown
SY6281	SOT23-5	L	Y	N	1	2.4~5.5	2.4~5.5	0.4~2	80	
SY6827	DFN2x2-8	H	Y	N	2	0.6~5.5	0.6~5.5	6	15	Programmable turn on delay & softstart. output discharge at shutdown

### Class D Amplifier

Part Number	Function	Vin (V)	Fsw (MHz)	HSFET Ron (mΩ)	LSFET Ron (mΩ)	Package
SY6010	1W Class D Audio Amp	2.5-5.5	1	180	180	MSOP8

### LDO Regulator

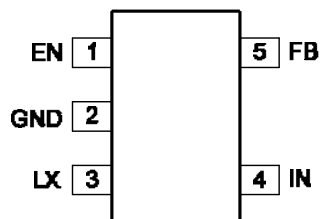
Part Number	Function	Vin (V)	Vout (V)	Iout(A)	Dropout Voltage(V)	Package
SY6306A	LDO Reg	2.8-5.5	3.3	0.6	0.5	SOT89-3
SY6306B	LDO Reg	2.8-5.5	1.2	0.6	0.5	SOT89-3
SY6330	LDO Reg	3.6-5.5	1.8V, 2.8V, 3.3V	0.15	0.15	SOT23-6

### LED Lamp Driver

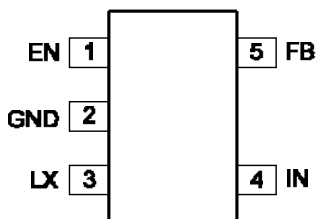
Part Number	Function	Package	Dimming	VIN Range	PFC	Isolation	Opto-Couple
SY5800	Flyback Driver	SO8/MSOP10	NO	AC LINE	YES	YES	NO
SY5801	Flyback Driver	SO8/MSOP10	Triac	AC LINE	NO	YES	NO

# Common Pinout

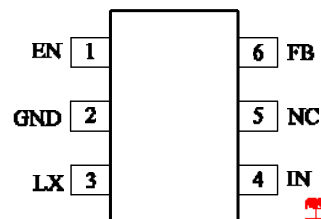
## Single Output Step Down Regulator



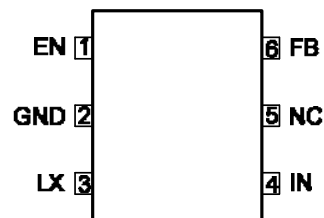
SOT23-5, TSOT23-5  
(SY8008A/B/C)



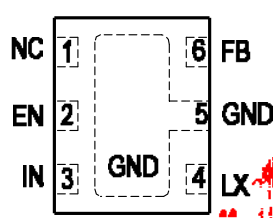
SOT23-5  
(SY8009A)



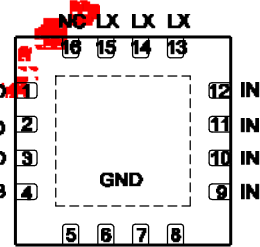
SOT23-6  
(SY8009B)



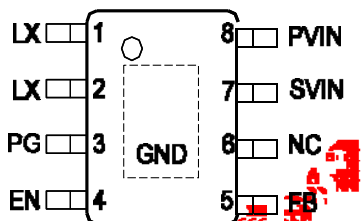
SSOT23-6  
(SY8009B)



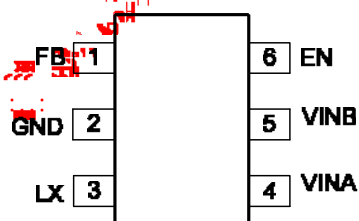
DFN2x2-6  
(SY8010/SY8010B/  
SY8010H/SY8010Z)



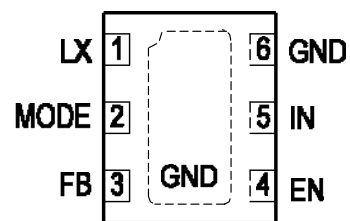
QFN3x3-16  
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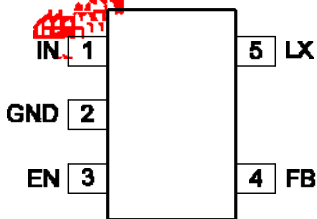
SO8E  
(SY8012/SY8013)



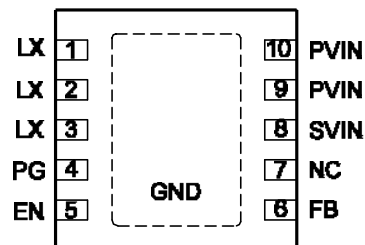
SOT23-6  
(SY8027)



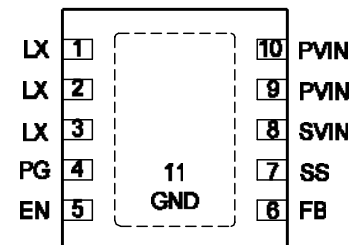
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(SY8030)



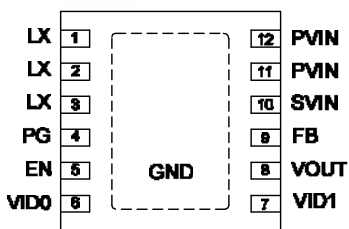
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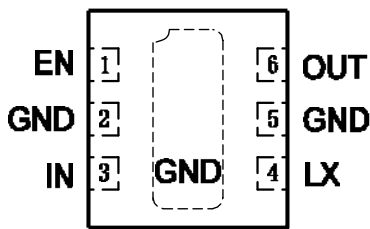
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(SY8035)



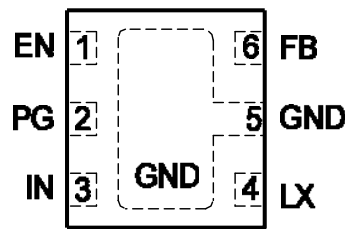
DFN3x3-10  
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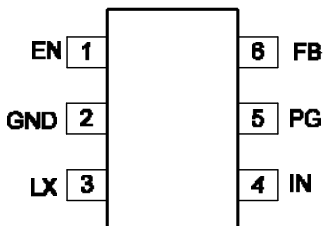
DFN3x3-10  
(SY8037)



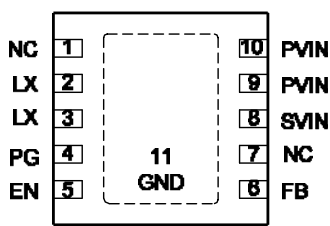
nDFN2x2-6  
(SY8040A/B)



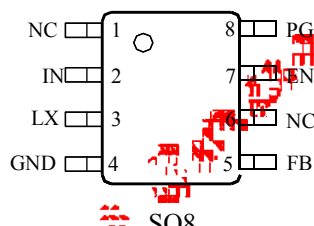
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(SY8041)



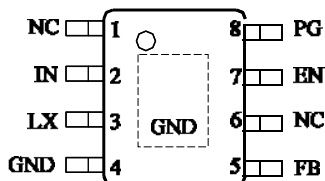
SOT23-6  
(SY8032/SY8065/SY8065L)



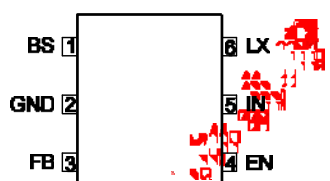
DFN3x3-10  
(SY8063/SY8063B)



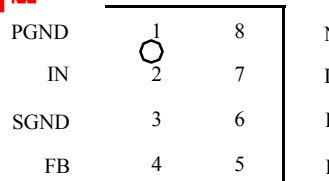
SO8  
(SY8082P)



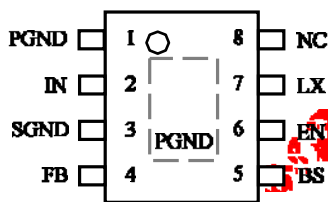
SO8E  
(SY8083P)



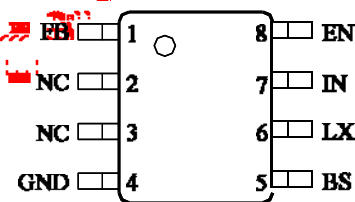
SOT23-6  
(SY8107C/D/SY8171H)



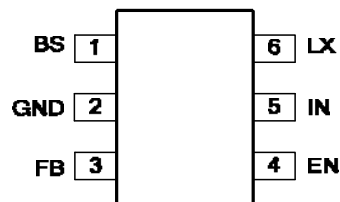
SO8  
(SY8152)



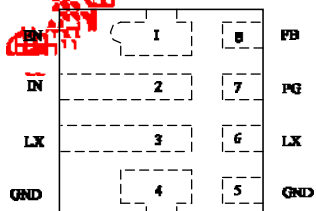
SO8E  
(SY8153)



SO8  
(SY8172)

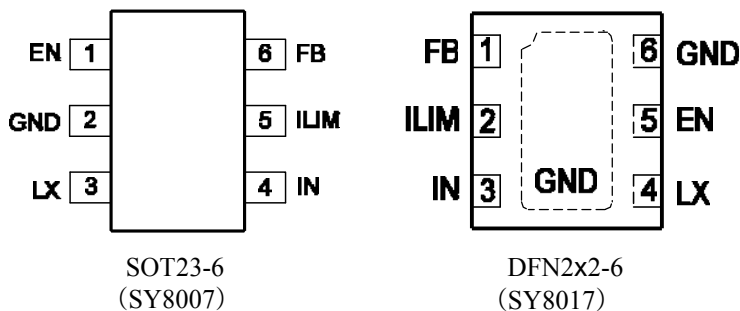


SOT23-6  
(SY8100/SY8200/SY8201)

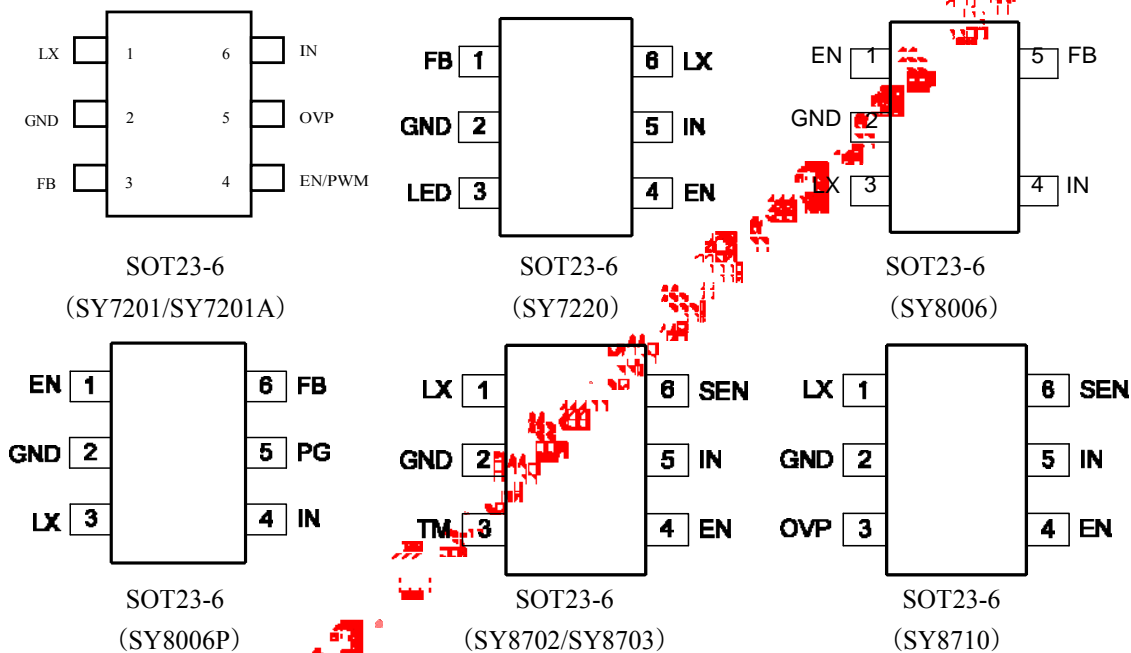


DFN2x2-8  
(SY8805)

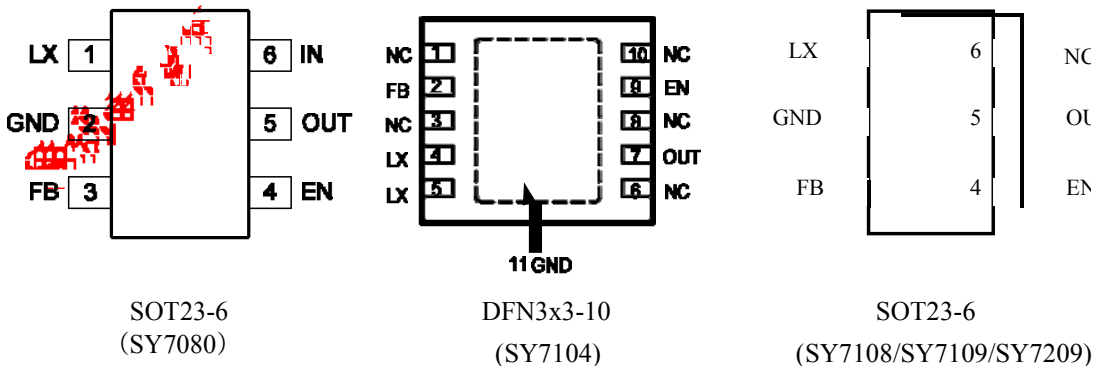
### Single Output Special Function Regulator



### White LED Driver

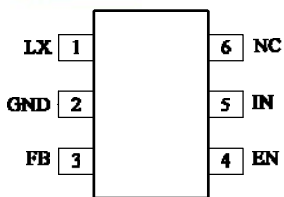


### Single Output Step Up Regulator

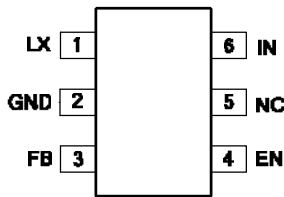




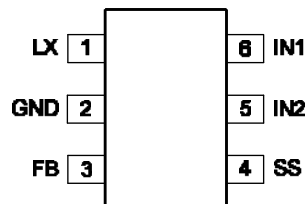
SILERGY



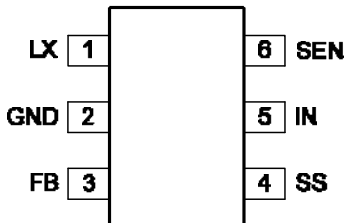
SOT23-6  
(SY7208)



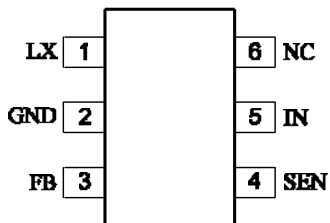
SOT23-6  
(SY7208A)



SOT23-6  
(SY7208B)

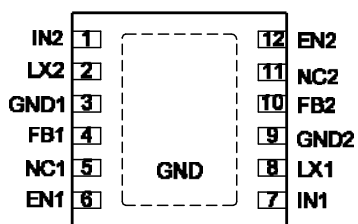


SOT23-6  
(SY7210)

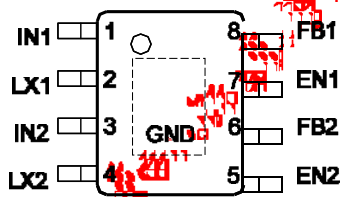


SOT23-6  
(SY7290)

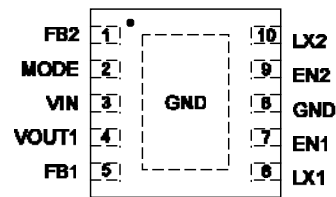
### Dual Output Regulator



DFN3x3-12  
(SY8020/SY8020H)

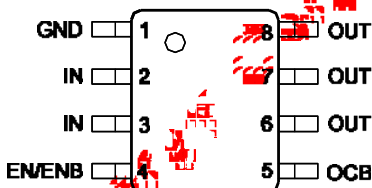


SO8  
(SY8021/SY8021L  
SY8022/SY8022LSY8023)

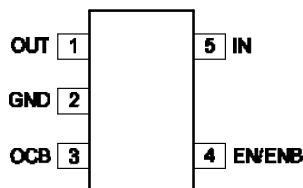


DFN3x3-10  
(SY8092)

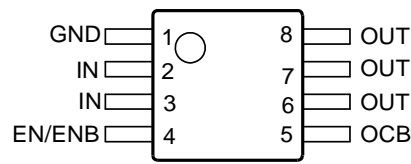
### Protection Switch



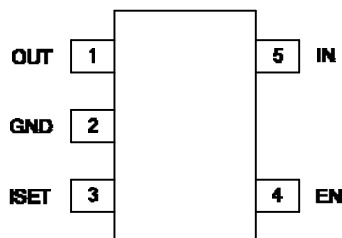
SO8  
(SY6288)



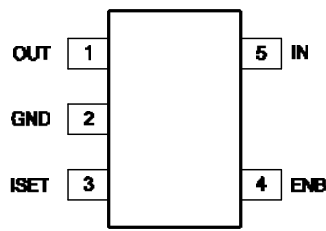
SOT23-5  
(SY6288)



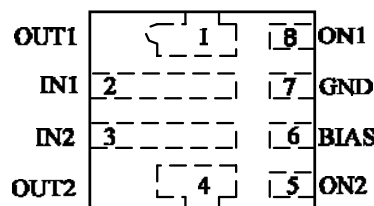
MSOP8  
(SY6288)



SOT23-5  
(SY6280)



SOT23-5  
(SY6281)

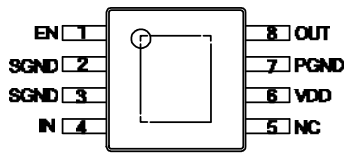


DFN2x2-8  
(SY6827)



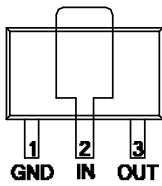


### Class D Amplifier

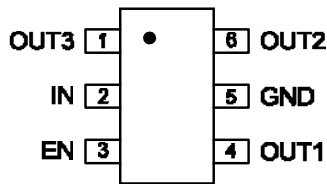


MSO8P  
(SY6010)

### LDO Regulator

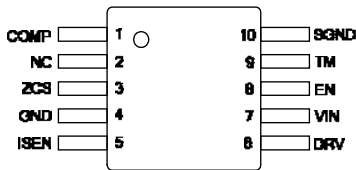


SOT89-3  
(SY6306A/SY6306B)

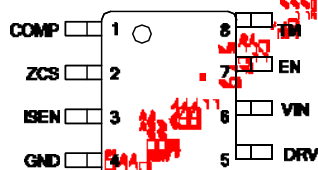


SOT23-6  
(SY6330)

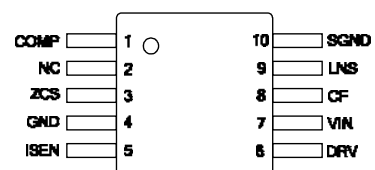
### LED Lamp Driver



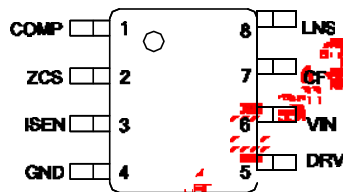
MSOP10  
(SY5800)



SO8  
(SY5800)



MSOP10  
(SY5801)



SO8  
(SY5801)