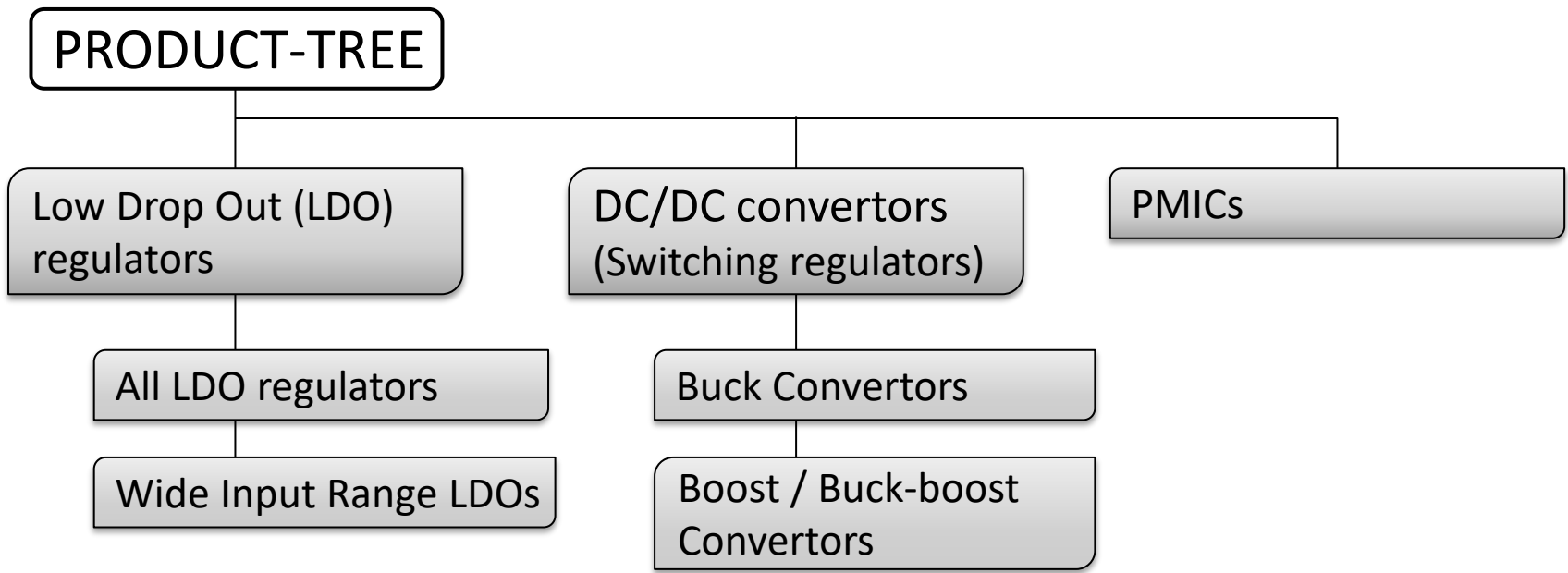


Power Management ICs Selection Guide

 *New Japan Radio Co., Ltd.*

Apr. 2020





Low Drop Out (LDO) regulators

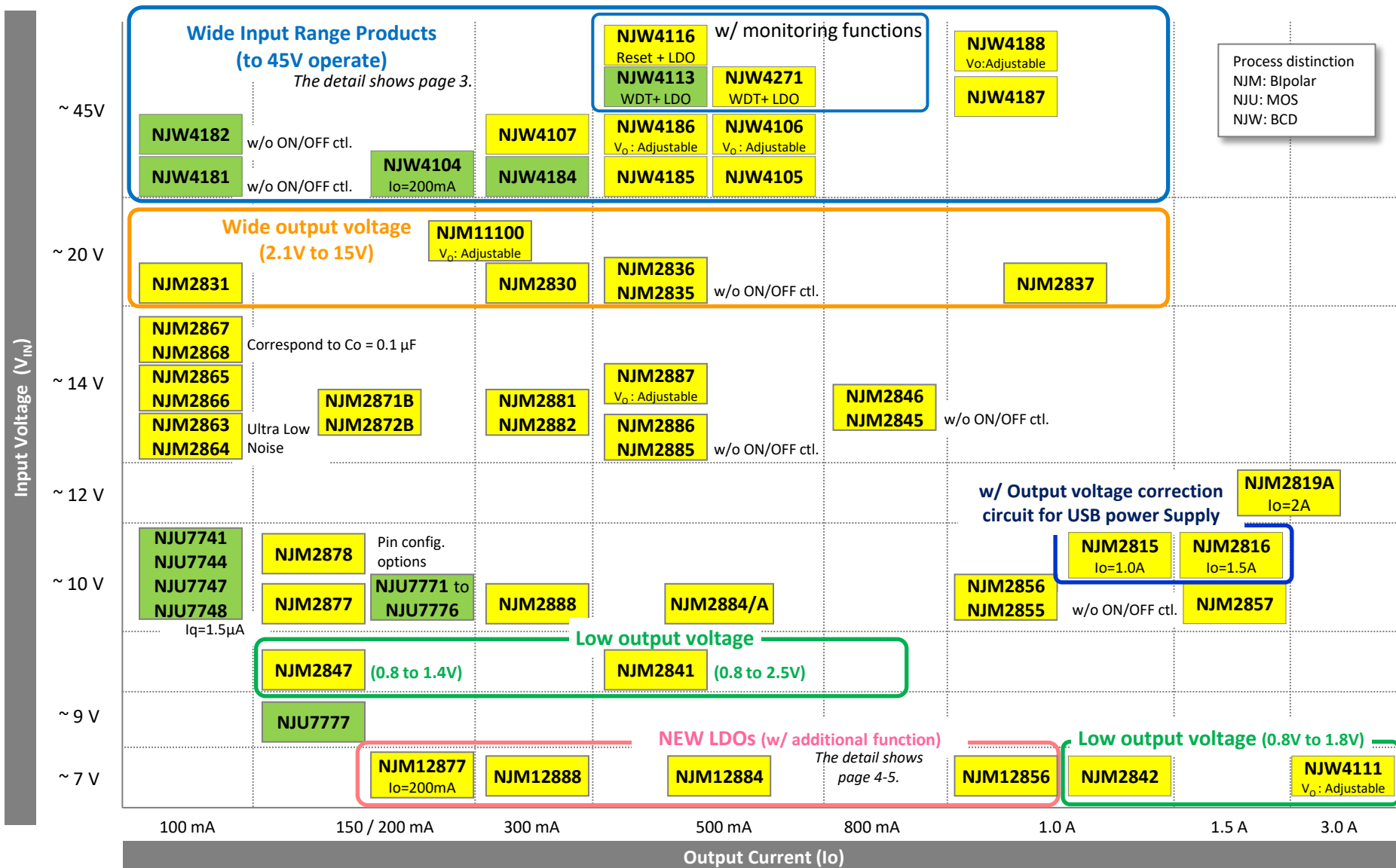
Wide coverage LDO Line-up

Low quiescent current

Excellent transient response

Unless other noted, the output voltage range is up to 5.0V.

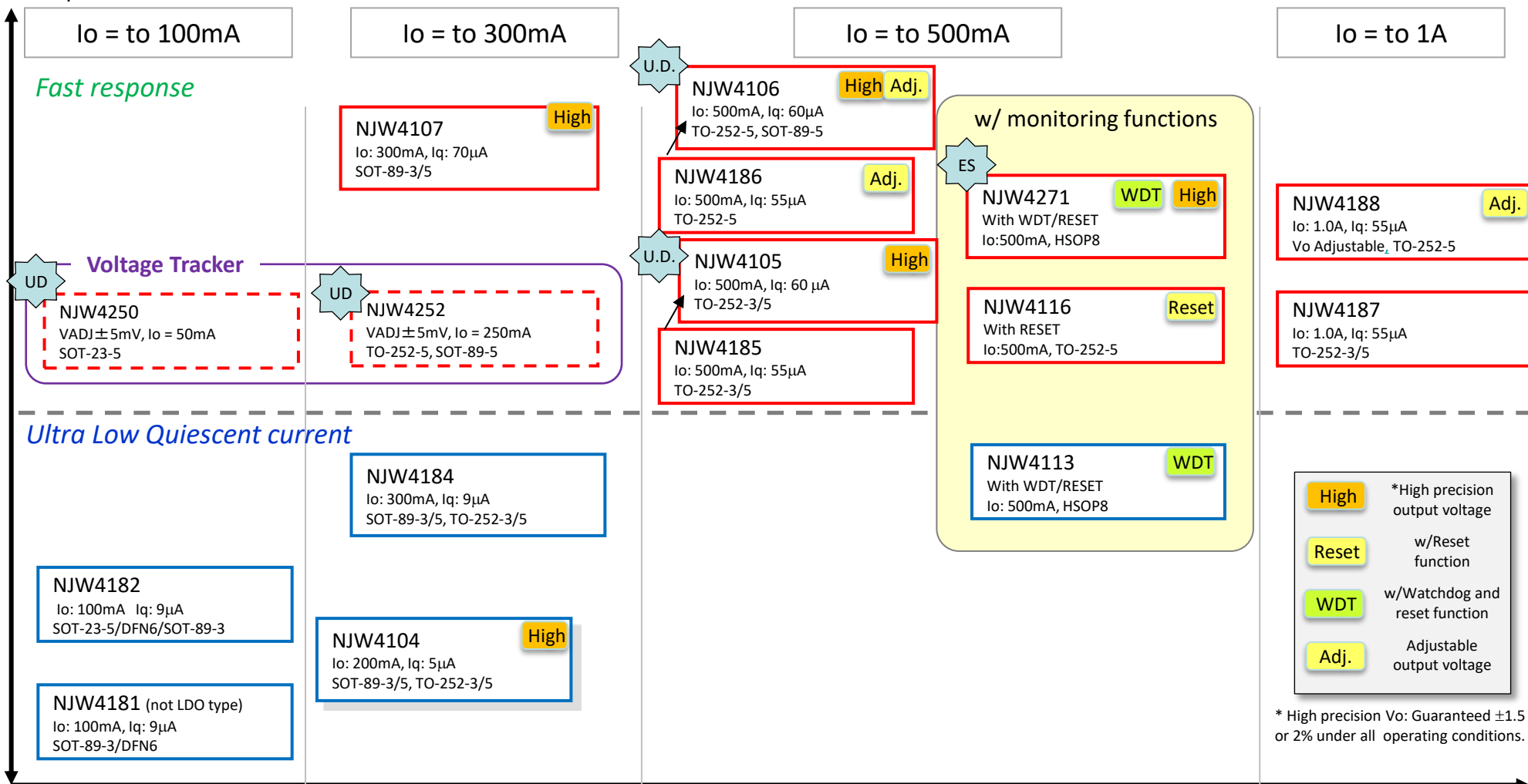
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Wide Input Range LDO Lineup

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Fast Response



* High precision Vo: Guaranteed ±1.5 or 2% under all operating conditions.

Low current consumption

Output Current



NEW LDOs NJM128xx Series

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LDO with Reverse Current Protection / Soft start / Discharge Function

■GENERAL DISCRIPTION

NJM128xx series are low dropout regulators which achieve high ripple rejection, low noise and high speed response characteristics with bipolar technology.

Adjustable soft-start function is useful for reducing inrush current and controlling power-on sequence. Moreover the discharge function makes effective sequence control with the soft-start function.

In addition, the reverse current protection makes external SBD unnecessary.

■FEATURES

- Adjustable Soft-start Function
- Discharge Function
- Reverse Current Protection
- Operating Voltage Range 2.3V to 6.5V (Maximum rate 7V)
- Operating Temperature Range -40°C to +125 °C
- Quiescent Current 145μA~400μA(Depends on each products)
- Output Current 200mA/300mA/500mA/1.0A
- Output Voltage Accuracy $V_o \pm 1.0\%$ (Ta=25°C)
- ON/OFF Function
- Correspond to Low ESR Capacitor (MLCC) 0.1μF (min.)
- Thermal Shutdown Protection
- Over Current Protection

■PACKAGE OUTLINE



DFN6-G1
1.6x1.6x0.4mm



SOT-23-5
2.8x2.9x1.2mm



SOT-89-5-2
4.5x4.5x1.5mm



TO-252-5-L3
6.54x10.0x2.3mm

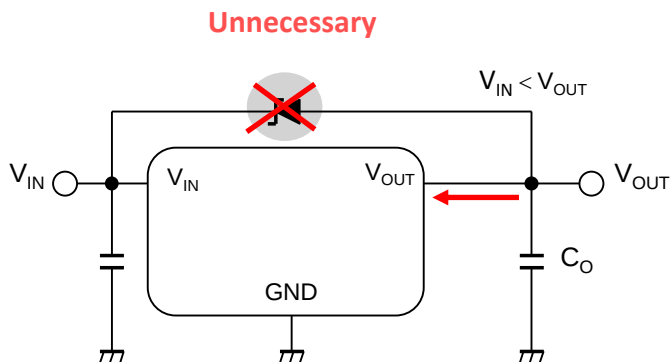
■LINE-UP

P/N	Output Current	Voltage Rank	Package
NJM12877	200mA	1.5V/1.8V/2.5V/ 3.3V/5.0V	SOT-23-5 DFN6-G1
NJM12888	300mA		SOT-23-5 DFN6-G1
NJM12884	500mA		SOT-89-5-2 TO-252-5-L3
NJM12856	1000mA		SOT-89-5-2 TO-252-5-L3

Advantage of NJM128xx Series

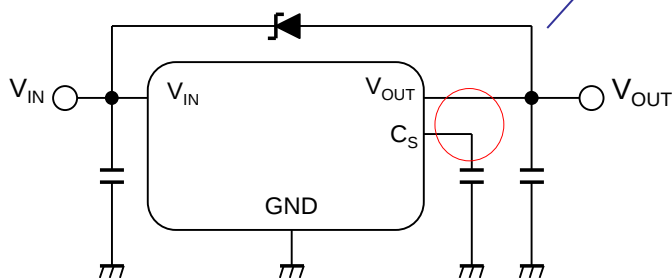
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1. Reverse Current Protection Circuit



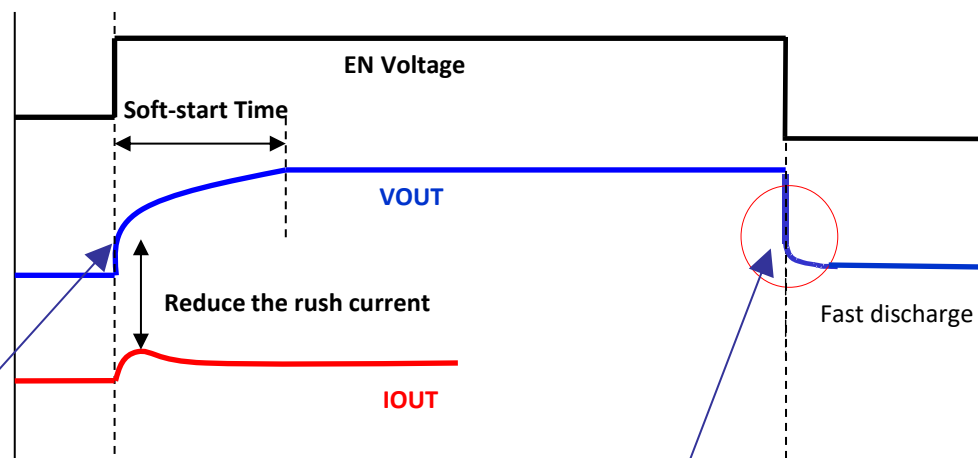
It eliminates the addition of external schottky barrier diode.

2. Soft-start Function

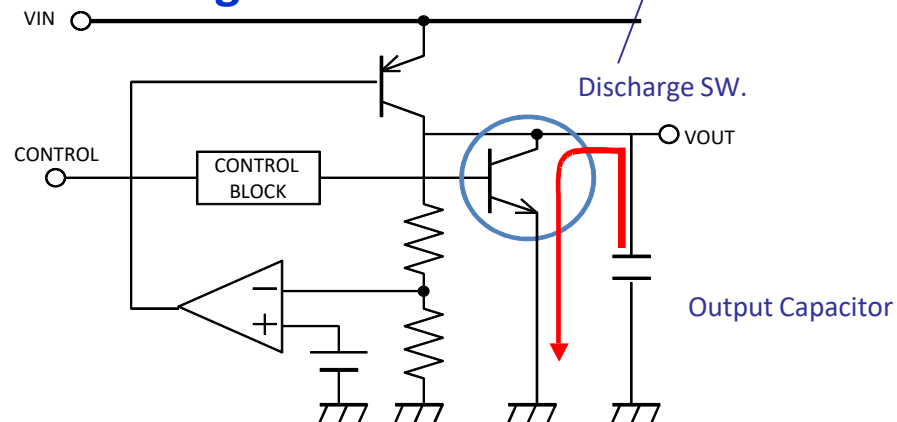


It is available to set of the output voltage start-up time and reduce the inrush current by external capacitor.

It is effective to sequence control of start-up / shutdown.



3. Discharge Function



The discharge circuit synchronizes with ON/OFF control.

LDO regulators ($V_{in} \leq 20V$) 1

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	Supply Voltage	Output Voltage	Output Voltage Range	Dropout Voltage*	Ripple Rejection*	Output Noise Voltage*	Output Capacitor*	ON/OFF Control	Package	SPICE model	Other
Io=100mA											
NJM2831	20V	±1.0%	2.1V to 15.5V	0.1V (Io=60mA)	75dB (f=1kHz)	45μVrms (Io=10mA)	1.0μF Ceramics	yes	SOT-23-5 DFN6-G1	Available	
NJM2863 NJM2864	14V	±1.0%	1.5V to 5.0V	0.1V (Io=60mA)	75dB (f=1kHz)	19μVrms 12μVrms	1.0μF Ceramics 1.0μF Tantalum	yes	SOT-23-5	Available	Pin Configuration option Ultra Low Noise
NJM2865 NJM2866	14V	±1.0%	1.5V to 5.0V	0.1V (Io=60mA)	75dB (f=1kHz)	45μVrms (Io=10mA)	1.0μF Ceramics	yes	SC-88A SOT-23-5	Available	Pin Configuration option SC-88A : only NJM2865
NJM2867 NJM2868	14V	±1.0%	1.5V to 5.0V	0.1V (Io=60mA)	75dB (f=1kHz)	40μVrms (Io=10mA)	0.1μF Ceramics	yes	SC-88A SOT-23-5		Pin Configuration option SC-88A : only NJM2867
NJU7741 NJU7744	10V	±1.0%	1.5V to 6.0V	0.17V (Io=60mA)	-	-	0.1μF Ceramics	yes	SOT-23-5		Iq=1.5μA (7744) with shunt SW
NJU7747 NJU7748	10V	±1.0%	1.5V to 5.0V	0.17V (Io=60mA)	-	-	0.1μF Ceramics	yes	SC-82AB		Iq=1.5μA (7748) with shunt SW
Io=150mA											
NJM2871B NJM2872B	14V	±1.0%	1.5V to 5.0V	0.1V (Io=60mA)	75dB (f=1kHz)	30μVrms (Io=10mA)	1.0μF Ceramics	yes	SOT-23-5	Available	Pin Configuration option
NJM2877	10V	±1.0%	1.5V to 5.0V	0.1V (Io=60mA)	75dB (f=1kHz)	30μVrms (Io=10mA)	0.47μF Ceramics	yes	SC-88A SOT-23-5		
NJM2878	10V	±1.0%	1.5V to 5.0V	0.1V (Io=60mA)	75dB (f=1kHz)	45μVrms (Io=10mA)	0.47μF Ceramics	yes	SC-88A SC-82AB DFN4-F1		Noise Bypass Capacitor less
NJU7771~ NJU7776	10V	±1.0%	1.5V to 5.0V	0.15V (Io=100mA)	65dB (f=1kHz)	70μVrms (Io=10mA)	1.0μF Ceramics	yes	SOT-23-5		Pin Configuration option, Iq=18μA (NJU7774~76) with shunt SW
NJU7777	9V	±1.0%	1.5V to 5.0V	0.13V (Io=100mA)	65dB (f=1kHz)	75μVrms (Io=10mA)	1.0μF Ceramics	yes	SC-82AB		Iq=18μA
Io=200mA											
NJM12877	7V	±1.0%	1.5V to 5.0V	0.12V (Io=100mA)	64dB (f=1kHz)	33μVrms (Io=10mA)	0.1μF Ceramics	yes	SOT-23-5 DFN6-G1	Available	Reverse Current Protection Soft Start Function Discharge Function

* Please confirm the specification separately because some parameters depend on output voltage.

LDO regulators ($V_{in} \leq 20V$) 2

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	Supply Voltage	Output Voltage	Output Voltage Range	Dropout Voltage*	Ripple Rejection*	Output Noise Voltage*	Output Capacitor*	ON/OFF Control	Package	SPICE model	Other
Io=300mA											
NJM12888	7V	$\pm 1.0\%$	1.5V to 5.0V	0.1V (Io=100mA)	66dB (f=1kHz)	32 μ Vrms (Io=10mA)	0.47 μ F Ceramics	yes	SOT-23-5 DFN6-G1	Available	Reverse Current Protection Soft Start Function Discharge Function
NJM11100	20V	$\pm 1.0\%$	1.3V to 17V	0.2V (Io=200mA)	75dB (f=1kHz)	30 μ Vrms (Io=10mA)	1.0 μ F Ceramics	yes	SOT-23-6-1	Available	Vo :Adjustable Reverse Current Protection
NJM2830	20V	$\pm 1.0\%$	2.1V to 15.5V	0.1V (Io=100mA)	75dB (f=1kHz)	50 μ Vrms (Io=10mA)	1.0 μ F Ceramics	yes	SOT-89-5-1		
NJM2881 NJM2882	14V	$\pm 1.0\%$	1.5V to 5.0V	0.1V (Io=100mA)	75dB (f=1kHz)	30 μ Vrms (Io=10mA)	1.0 μ F Ceramics	yes	SOT-23-5		Pin Configuration option
NJM2888	10V	$\pm 1.0\%$	1.5V to 5.0V	0.1V (Io=100mA)	75dB (f=1kHz)	45 μ Vrms (Io=10mA)	1.0 μ F Ceramics	yes	SOT-23-5 DFN4-F1		Noise Bypass Capacitor less
Io=500mA											
NJM12884	7V	$\pm 1.0\%$	1.5V to 5.0V	0.18V (Io=300mA)	68dB (f=1kHz)	28 μ Vrms (Io=10mA)	0.47 μ F Ceramic	yes	SOT-89-5-2 TO-252-5	Available	Reverse Current Protection Soft Start Function Discharge Function
NJM2835 NJM2836	20V	$\pm 1.0\%$	2.1V to 15.5V	0.18V (Io=300mA)	75dB (f=1kHz)	45 μ Vrms (Io=10mA)	2.2 μ F Ceramics	NJM2835:no NJM2836:yes	TO-252-3-L1 TO-252-5-L3		
NJM2884 NJM2884A	10V	$\pm 1.0\%$	1.5V to 5.0V	0.18V (Io=300mA)	75dB (f=1kHz)	45 μ Vrms (Io=10mA)	2.2 μ F Ceramics	yes	SOT-89-5-1 TO-252-5-L3 DFN6-H1	Available	TO-252-5, DFN6: Only NJM2884A
NJM2885 NJM2886	14V	$\pm 1.0\%$	1.5V to 5.0V	0.18V (Io=300mA)	75dB (f=1kHz)	45 μ Vrms (Io=10mA)	2.2 μ F Ceramics	NJM2885:no NJM2886:yes	TO-252-3-L1 TO-252-5-L3	Available	
NJM2887	14V	Vref $\pm 1.0\%$	1.5V to 5.0V	0.18V (Io=300mA)	70dB (f=1kHz)	50 μ Vrms (Io=10mA)	2.2 μ F Ceramics	yes	TO-252-5-L3	Available	Vo :Adjustable

* Please confirm the specification separately because some parameters depend on output voltage.

LDO regulators ($V_{in} \leq 20V$) 3

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	Supply Voltage	Output Voltage	Output Voltage Range	Dropout Voltage*	Ripple Rejection*	Output Noise Voltage*	Output Capacitor*	ON/OFF Control	Package	SPICE model	Other
Io=800mA											
NJM2845 NJM2846	14V	±1.0%	1.5V to 5.0V	0.18V (Io=500mA)	75dB (f=1kHz)	45Vrms (Io=10mA)	2.2μF Ceramics	NJM2845:no NJM2846:yes	TO-252-3-L1 TO-252-5-L3	Available	
Io=1000mA											
NJM12856	7V	±1.0%	1.5V to 5.0V	0.18V (Io=600mA)	77dB (f=1kHz)	30μVrms (Io=10mA)	0.47μF Ceramics	yes	SOT-89-5-2 TO-252-5-L3	Available	Reverse Current Protection Soft Start Function Discharge Function
NJM2837	20V	±1.0%	2.1V to 15.5V	0.2V (Io=600mA)	80dB (f=1kHz)	45Vrms (Io=10mA)	4.7μF Ceramics	yes	TO-252-5-L3		Reverse Current Protection
NJM2855 NJM2856	10V	±1.0%	1.5V to 5.0V	0.18V (Io=600mA)	75dB (f=1kHz)	45Vrms (Io=10mA)	2.2μF Ceramics	NJM2855:no NJM2856:yes	TO-252-3-L1 TO-252-5-L3 HSOP8-M1	Available	HSOP8: only NJM2856
Io=1500mA											
NJM2857	10V	±1.0%	1.5V to 5.0V	0.2V (Io=1A)	80dB (f=1kHz)	55μVrms (Io=10mA)	4.7μF Ceramics	yes	TO-252-5-L3		Reverse Current Protection

* Please confirm the specification separately because some parameters depend on output voltage.

LDO regulators ($V_{in} \leq 20V$) 4

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	Supply Voltage	Output Voltage	Output Voltage Range	Dropout Voltage*	Ripple Rejection*	Output Noise Voltage*	Output Capacitor*	ON/OFF Control	Package	SPICE model	Other
Io=2000mA											
NJM2819A	12V	±1.0%	1.8V to 5.0V	0.1V (Io=1A)	65dB (f=1kHz)	42μVrms (Io=10mA)	4.7μF Ceramics	yes	TO-252-5-L3		
Negative output voltage LDO											
NJM2827	-14V	±1.5%	-1.4V to -10V	0.13V (Io=60mA)	65dB (f=1kHz)	100μVrms (Io=10mA)	1.0μF Ceramics	no	SC-88A		Io=100mA, without ON/OFF control
NJM2828	-14V	±1.5%	-1.4V to -10V	0.13V (Io=60mA)	65dB (f=1kHz)	100μVrms (Io=10mA)	1.0μF Ceramics	yes	SC-88A		Io=100mA, with ON/OFF control by Positive voltage
NJM2829	-14V	±1.5%	-0.8V to -1.3V	0.13V (Io=60mA)	80dB (f=1kHz)	45μVrms (Io=10mA)	2.2μF Ceramics	yes	SC-88A		Io=100mA, with ON/OFF control by Positive voltage Correspond to lower output voltage
Low output voltage LDO											
NJM2847	10V	±1.0%	0.8V to 1.4V	-	85dB (f=1kHz)	20μVrms (Io=10mA)	2.2μF Ceramics	yes	SC-88A		Io=150mA Series Reg.(Not LDO)
NJM2841	10V	±1.0%	0.8V to 2.5V	0.10V (Io=300mA)	86dB (f=1kHz)	40μVrms (Io=10mA)	1.0μF Ceramics	yes	SOT-23-5		Io=500mA Dual Supply Voltage Type
NJM2842	7V	±1.0%	0.8V to 1.8V	0.28V (Io=600mA)	91dB (f=1kHz)	44μVrms (Io=10mA)	4.7μF Ceramics	yes	SOT-89-5-2 DFN6-H1 TO-252-5-L3		Io=1.0A Dual Supply Voltage Type
NJW4111	5.5V	±1.0%	0.8V to 1.8V	0.08V (Io=3.0A)	-	-	10μF Ceramics	yes	HSOP8-M1	Available	Io=3.0A Dual Supply Voltage Type Vo :Adjustable
ASSP (LDO with output voltage correction circuit for USB power Supply)											
NJM2815	10V	±1.0%	5.1V	0.2V (Io=1.0A)	-	-	22μF Ceramics	yes	HSOP8-M1	Available	Io=1.5A (1.0A guarantee) Error Flag Output Delay for Hot Plug
NJM2816	10V	±1.0%	5.1V	0.2V (Io=1.0A)	-	-	22μF Ceramics	yes	HSOP8-M1		Io=1.8A (1.5A guarantee) Error Flag Output Delay for Hot Plug

* Please confirm the specification separately because some parameters depend on output voltage.

Wide Input Range LDO regulators 1


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	Supply Voltage	Output Voltage	Output Voltage Range	Dropout Voltage*	Ripple Rejection*	Quiescent Current	Output Capacitor*	ON/OFF Control	Package	SPICE model	Other
Io=100mA											
NJW4181	40V	±1.0%	2.5V to 15.0V	Vo+1.7V (3V<Vo≤5V)	-	9μA	2.2μF Ceramics	no	SOT-89-3 DFN6-G1		Series Reg.(Not LDO) Reverse Current Protection
NJW4182	45V	±1.0%	2.5V to 5.0V	0.18V (Io=60mA)	54dB (f=1kHz)	9μA	4.7μF Ceramics	no	DFN6-H1 SOT-23-5 SOT-89-3		
Io=200mA											
NJW4104	45V	±1.0%	2.5V to 15.0V	0.18V (Io=100mA)	41dB (f=1kHz)	A ver.:5.5μA B ver.:5.0μA	2.2μF Ceramics	A ver.:yes B ver.:no	SOT-89-3/5-2 TO-252-3-L1		Ultra Low Quiescent Current TO-252-3-L4/-5-L5: U.D.
Io=300mA											
NJW4184	40V	±1.0%	2.5V to 15.0V	0.1V (Io=100mA)	40dB (f=1kHz)	A ver.:12 μA B ver.:9μA	4.7μF Ceramics	A ver.:yes B ver.:no	SOT-89-3/5-2 TO-252-3-L1	Available	Low Quiescent Current
NJW4107	45V	±1.0%	2.5V to 15.0V	0.12V (Io=100mA)	56dB (f=1kHz)	A ver.:75μA B ver.:70μA	2.2μF Ceramics	A ver.:yes B ver.:no	SOT-89-3/5-2		Fast response TO-252-3-L4/-5-L5: U.D.
Io=500mA											
NJW4185	45V	±1.0%	2.0V to 15.0V	0.27V (Io=300mA)	62dB (f=1kHz)	A ver.:55 μA B ver.:48μA	2.2μF Ceramics	A ver.:yes B ver.:no	TO-252-5-L3 TO-252-3-L1		
NJW4186	45V	±1.0%	2.0V to 16.0V	0.27V (Io=300mA)	60dB (f=1kHz)	55μA	2.2μF Ceramics	yes	TO-252-5-L3		Vo :Adjustable
NJW4105 (U.D.)	45V	±1.0%	2.5V to 15.0V	0.24 V (Io=300mA)	53 dB (f=1kHz)	A ver. :65μA B ver. :60μA	2.2μF Ceramics	A ver.: yes B ver.: no	TO-252-5-L5 TO-252-3-L4		Fast response
NJW4106 (U.D.)	45V	±1.0%	2.5V to 16.0V	0.24 V (Io=300mA)	53 dB (f=1kHz)	65μA	2.2μF Ceramics	yes	TO-252-5-L5 SOT-89-5-2		Fast response Vo :Adjustable
Io=1000mA											
NJW4187	45V	±1.0%	2.0V to 15.0V	0.27V (Io=600mA)	58dB (f=1kHz)	A ver.:55 μA B ver.:48μA	4.7μF Ceramics	A ver.:yes B ver.:no	TO-252-5-L3 TO-252-3-L1		
NJW4188	45V	±1.0%	2.0V to 15.0V	0.27V (Io=600mA)	58dB (f=1kHz)	55μA	4.7μF Ceramics	yes	TO-252-5-L3		Vo :Adjustable

* Please confirm the specification separately because some parameters depend on output voltage.

Wide Input Range LDO regulators 2


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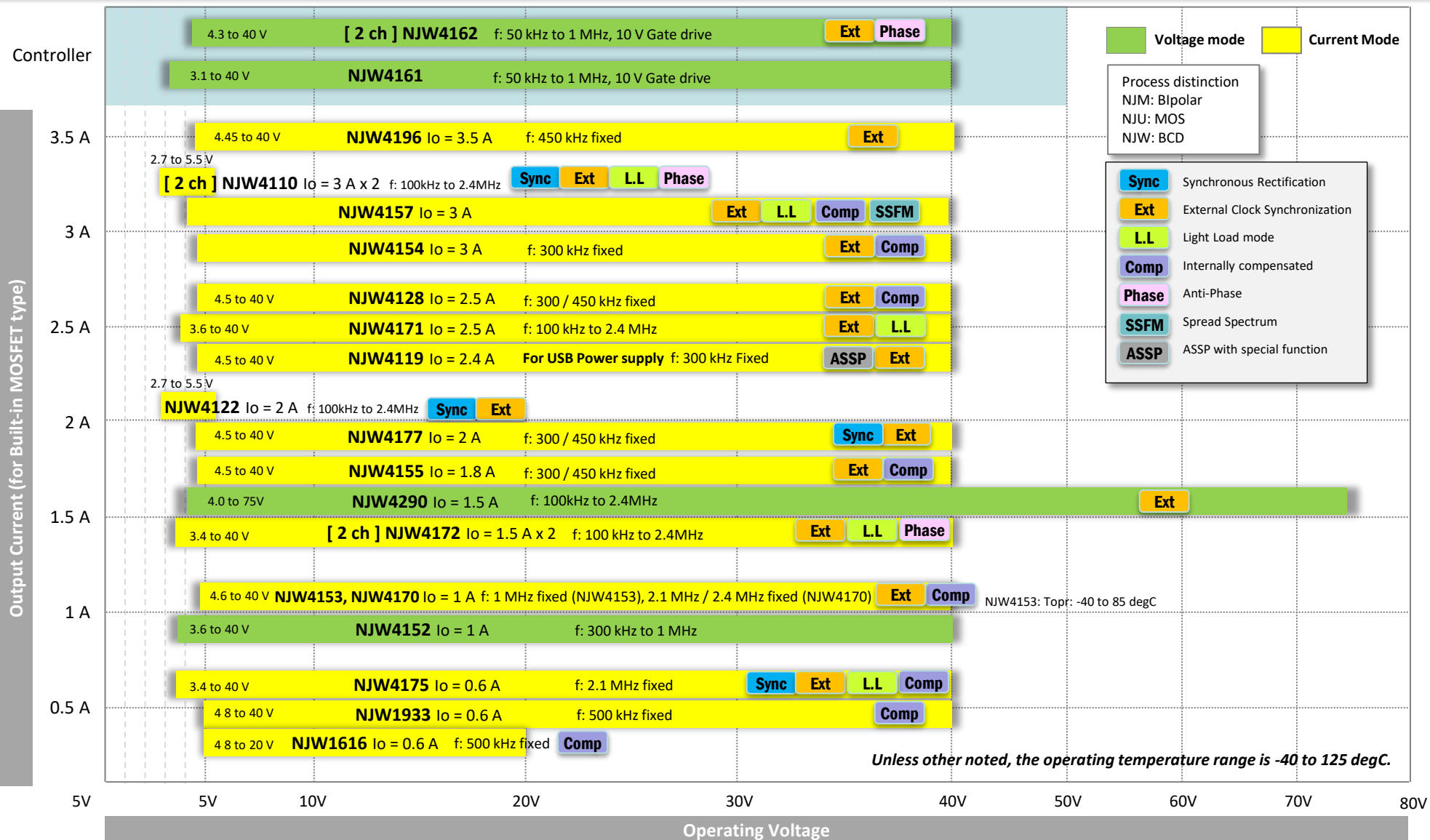
	Supply Voltage	Output Voltage	Detection Voltage	Dropout Voltage*	Ripple Rejection*	Quiescent Current	Output Capacitor*	ON/OFF Control	Package	SPICE model	Other
LDO+WDT+RESET											
NJW4113	45V	5V $\pm$ 1.0%	4.1V $\pm$ 1.0% 4.6V $\pm$ 1.0%	0.3V (I _o =300mA)	45dB (f=1kHz)	37μA	4.7μF Ceramics	yes (WDT only)	HSOP8-M1		I _o =500mA Vo detection Adjustable Detection Voltage
NJW4271	45V	5V $\pm$ 1.0%	4.1V $\pm$ 1.0% / 5.6V $\pm$ 3.0% 4.6V $\pm$ 1.0% / 5.6V $\pm$ 3.0%	0.34V (I _o =300mA)	68dB (f=1kHz)	120μA	2.2μF Ceramics	yes (whole device)	HSOP8-M1		I _o =500mA Fast response Vo detection (window detected)
LDO+RESET											
NJW4116	45V	5V $\pm$ 1.0%	4.1V $\pm$ 1.0% 4.6V $\pm$ 1.0%	0.27V (I _o =300mA)	55dB (f=1kHz)	55μA	4.7μF Ceramics	no	TO-252-5-L3		Vo detection

	Supply Voltage	Output Voltage	Tracking Voltage Range	Dropout Voltage*	Ripple Rejection*	Quiescent Current	Output Capacitor*	ON/OFF Control	Package		Other
Tracking Regulator											
NJW4250 (U.D.)	45V	V _{ADJ} $\pm$ 5mV	2.5V to 36V	0.1V (I _o =50mA)	80dB (f=100Hz)	40μA	2.2μF Ceramics	yes	SOT-23-5		I _o =50mA
NJW4252 (U.D.)	45V	V _{ADJ} $\pm$ 5mV	1.5V to 36V	0.6V (I _o =200mA)	80dB (f=100Hz)	40μA	2.2μF Ceramics	yes	TO-252-5 SOT-89-5-2		I _o =250mA

* Please confirm the specification separately because some parameters depend on output voltage.

DC/DC Convertors (Switching Regulators)

Buck Converter Switching Regulator ICs

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Buck Converter Switching Regulator ICs 1

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	Regulated Output #	Integrated MOSFET	Operating Voltage Range [V]	Output Current [A]	Operating Frequency [kHz]	External Clock Sync.	Power Good	Light Load Mode	Package	Evaluation Board	SPICE model	Note
Low Input Voltage												
NJW4110	2	yes (Synchronous)	2.7 to 5.5	3A / ch	100 to 2400	yes	yes	Sleep mode	EQFN24-LE	On request	Available	
NJW4122	1	yes (Synchronous)	2.7 to 5.5	2A	100 to 2400	yes	-	-	DFN8-U1	On request		
Wide input range (Integrated MOSFET)												
NJW1616	1	yes	4.5 to 20	0.6 A	500 (Fixed)	-	-	-	SOT-23-6-1	On request		LT1616/LM2736 Compatible
NJW1933	1	yes	4.5 to 40	0.6 A	500 (Fixed)	-	-	-	SOT-23-6-1	On request		LT1933/LM2842 Compatible
NJW4128	1	yes	4.5 to 40	2.5 A	300, 450 (Fixed)	yes	yes	-	HSOP8-M1	On request	A ver.: Available	
NJW4152A / B / AB	1	yes	A / B: 4.6 to 40 AB: 3.6 to 40	1 A	300 to 1000	-	-	-	A: HSOP8-M1 AB: HSOP8-M1 B: MSOP8	Available		
NJW4153	1	yes	4.6 to 40	1 A	1000 (Fixed)	-	-	-	SOT89-5-2 DFN8-V1	On request		
NJW4154	1	yes	4.5 to 40	3 A	300 (Fixed)	yes	yes	-	HSOP8-M1 TO-252-5-L3	Available		
NJW4155	1	yes	4.5 to 40	1.8 A	300, 450 (Fixed)	yes	yes	-	HSOP8-M1 TO-252-5-L3	On request	A ver.: Available	
NJW4170	1	yes	4.5 to 40	1 A	2100, 2400 (Fixed)	yes	-	-	SOT89-5-2 DFN8-V1	On request		
NJW4171	1	yes	3.4 to 40	2.5 A	100 to 2400	yes	yes	Sleep mode	HSOP8-M1	Available	B ver.: Available	
NJW4172	2	yes	3.4 to 40	1.5 A / ch	100 to 2400	yes	yes	Sleep mode	HTSSOP24-P1	On request		
NJW4175 (U.D.)	1	yes (Synchronous)	3.4 to 40	0.6 A	2100 (Fixed)	yes	yes	Sleep mode	HSOP8-M1	Now Preparing		

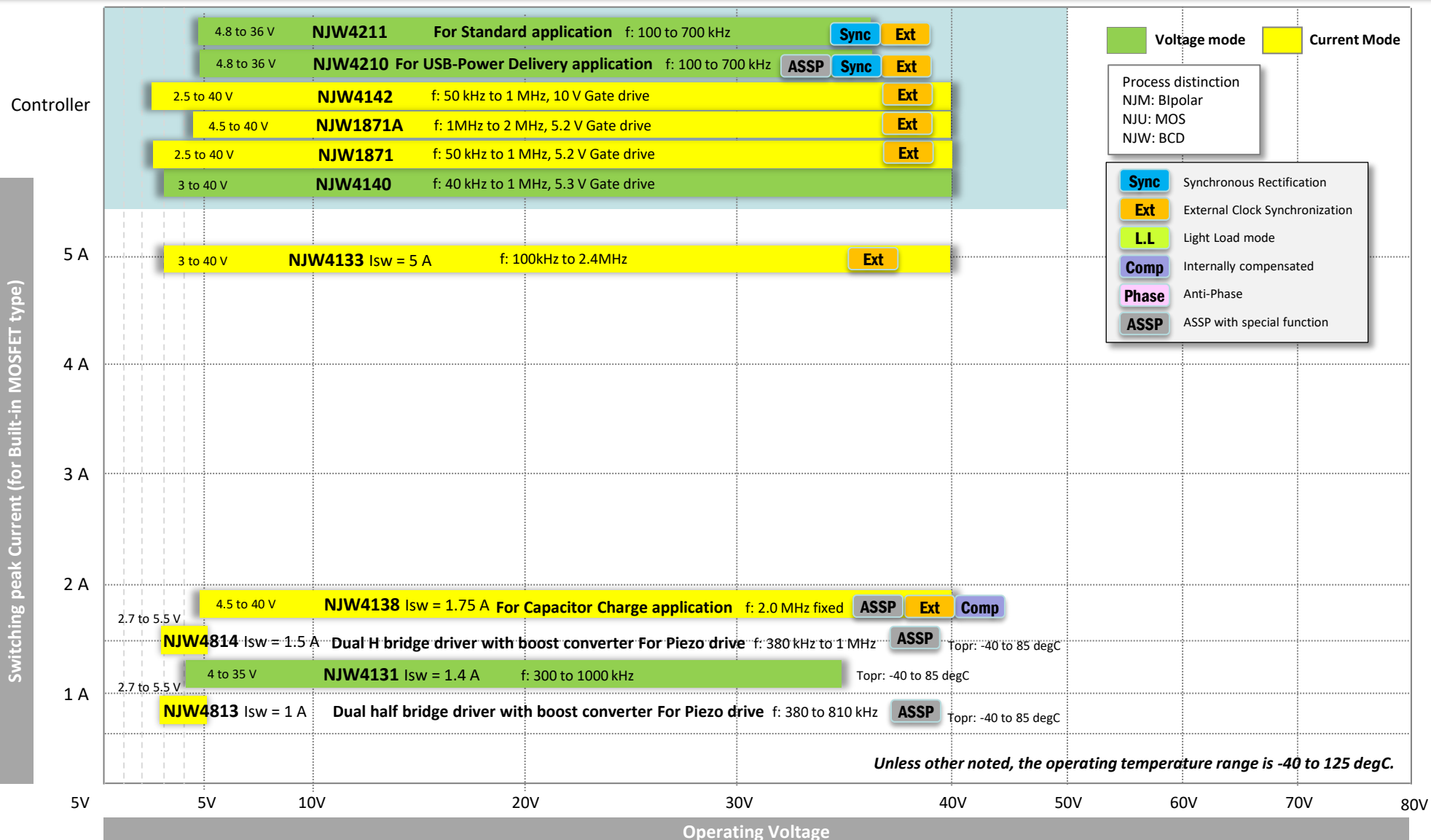


Buck Converter Switching Regulator ICs 2

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	Regulated Output #	Integrated MOSFET	Operating Voltage Range [V]	Output Current [A]	Operating Frequency [kHz]	External Clock Sync.	Power Good	Light Load Mode	Package	Evaluation Board	SPICE model	Note
Wide input range (Integrated MOSFET)												
NJW4177	1	yes (Synchronous)	3.6 to 40	2 A	300, 450 (Fixed)	yes	yes	PWM / PFM	HSOP8-M1	On request		
NJW4157 (U.D.)	1	Yes (N channel)	4.0 to 40	3 A	450, 2100 (Fixed)	yes	yes	Sleep mode	HSOP8-M1 DFN8-WD	Now Preparing		Built-in SSFM Wettable Flank package (DFN8)
NJW4196	1	yes	4.45 to 40	3.5 A	450 (Fixed) 100 to 1000	yes	yes	-	HSOP8-M1	On request		
Wide input range (Controller)												
NJW4161	1	-	3.1 to 40	-	50 to 1000	-	-	PWM / PFM	MSOP8	Available		10 V Gate drive
NJW4162A	2	-	4.3 to 40	-	100 to 1000	yes	yes	-	SSOP20-C3	On request		10 V Gate drive
Wide input range (ASSP)												
NJW4119	1	yes	6.5 to 40	2.4 A	300 (Fixed)	yes	yes	-	HTSSOP24-P1	On request		Built-in output voltage correction circuit for USB power Supply

Boost / Buck-Boost Converter Switching Regulator ICs

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Boost / Buck-Boost Converter Switching Regulator ICs

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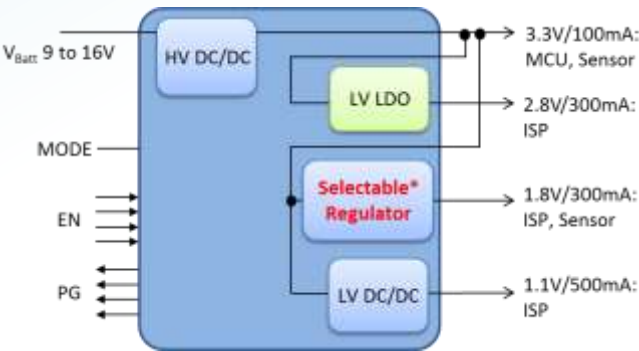
	Regulated Output #	Integrated MOSFET	Operating Voltage Range [V]	Switching Current [A]	Operating Frequency [kHz]	External Clock Sync.	Power Good	Light Load Mode	Package	Evaluation Board	SPICE model	Note
Wide input range (Integrated MOSFET)												
NJW4131A / B	1	yes	4 to 35	A: 1.4 A B: 1 A	300 to 1000	-	-	-	A: HSOP8-M1 B: MSOP8	Available		
NJW4132	1	yes	4.5 to 40	1.75 A	300, 700, 2000 (Fixed)	yes	-	-	SOT-89-5-2	On request	C ver.: Available	
NJW4133	1	yes	3 to 40	5 A	100 to 2400	yes	-	-	HSOP8-M1	Available	Available	Over Voltage protection
Wide input range (Boost / Buck-Boost Controller)												
NJW1871	1	-	2.5 to 40	-	50 to 1000	yes	-	-	MSOP10	Available	Develop	5.2 V Gate drive
NJW1871A (U.D.)	1	-	4.5 to 40	-	1000 to 2000	yes	-	-	MSOP10	On request	Develop	5.2 V Gate drive
NJW4142	1	-	2.5 to 40	-	50 to 1000	yes	-	-	MSOP10	Available	Available	10 V Gate drive
NJW4140	1	-	3 to 40	-	40 to 1000	-	-	-	MSOP8 DMP8	Available	Available	5.3 V Gate drive
NJW4211 (U.D.)	1	- (Synchronous)	4.8 to 36	-	100 to 700	yes	yes	-	EQFN24-LE	On request		Buck-Boost Converter
ASSP												
NJW4138	1	yes	4.5 to 40	1.75 A	2000 (Fixed)	yes	-	-	SOT-89-5-2	On request		Optimized for capacitor charging application
NJW4210 (U.D.)	1	- (Synchronous)	4.8 to 36	-	100 to 700	yes	-	-	EQFN24-LE	On request		Buck-Boost Converter with output voltage select function according to USB-PD specification.
NJW4813	1	yes	2.7 to 5.5	1 A	380 to 810	-	-	-	PCSP20-E3	On request		Dual half bridge driver with boost converter For Piezo drive
NJW4814	1	yes	2.7 to 5.5	1.5 A	380 to 1000	-	-	-	EQFN24-LE	On request		Dual H-bridge driver with boost converter For Piezo drive

Camera

NJW4750 4ch PMIC



for Automotive Camera Module such as Rear View Camera, e-Mirror, Surround View, ADAS and other camera system including ISP.



Small Leadless Package
EQFN26

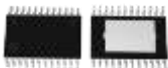
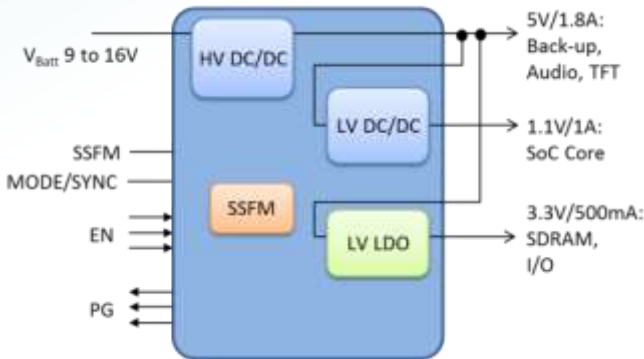
Meter cluster

NJW4751 3ch PMIC

U.D.



for Meter cluster, HUD and various power source. NJW4751 covers main power source such as MCU, audio, SoC/DSP and SDRAM.



High Power Package
HTSSOP24

	Regulated Output #	High voltage ch.	Low voltage DC/DC	Low voltage LDO	Operating Voltage Range [V]	Operating Frequency [kHz]	External Clock Sync.	Power Good	Light Load Mode	Package	Additional Function	Evaluation Board	Note
PMIC													
NJW4750	4	DC/DC 1	Synchronous ₂ *	1	3.9 to 40	280 to 2400	yes	yes	-	EQFN26-HH	Selectable OCP	Available	* One LV DC/DC can be used as LDO (Selectable Reg)
NJW4751 (U.D.)	3	DC/DC 1	Synchronous ₁	1	3.4 to 40	100 to 2400	yes	yes	Sleep mode	HTSSOP24-P1	SSFM	On request	

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