

Product Overview

NCP718: LDO Regulator, 300 mA, Wide Vin, Ultra-Low Iq

For complete documentation, see the data sheet.

The NCP718 is 300 mA LDO Linear Voltage Regulator. It is a very stable and accurate device with ultra-low quiescent current consumption (typ. 4 μ A over the full temperature range) and a wide input voltage range (up to 24 V). The regulator incorporates several protection features such as Thermal Shutdown and Current Limiting.

Similar Products:

	NCP715	NCP716	NCP716B	NCP718
Output Current (A)	0.05	0.08	0.15	0.30
PSRR f=1 kHz (dB)	52	60	53	52
Dropout Voltage (V)	0.230	0.310	0.600	0.275

Features

- Ultra-Low Quiescent Current typ. 4 μ A over Temperature
- Operating Input Voltage Range 2.5 V to 24 V
- Adjustable and Fixed Version Available
- High PSRR 60dB at 1kHz
- Noise typ. 36 μ V_{RMS} from 100 Hz to 100 kHz
- Stable with 1 μ F output capacitor
- Soft-start to Reduce Inrush Current and Overshoots
- SOA Limiting for High Vin / High Iout – Static and Dynamic

Applications

- NCP718 can be used for powering MCU and other IC
- Battery powered equipment
- Industrial power supplies
- Wireless routers
- Wireless charges

Benefits

- Improved efficiency during light load conditions
- Wide operating range, suitable for industrial
- Possibility to create any output voltage in range 1.2V to 5V
- Excellent for power sensitive device
- Very well suited for noise sensitive application
- Good stability with common and cheap capacitors
- Smooth and controlled output voltage raise
- Reliable operation under various condition

End Products

- Telecommunication : Zigbee, NB-IoT, Industrial : Smart Meter, Smart LED, Set-Top-Box, Medical : Equipment
- Wireless charges, routers
- Wearable electronics
- Sensor systems
- Battery powered applications

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Output	Polarity	V _O (V)	I _{O Typ} (A)	V _{I Min} (V)	V _{I Max} (V)	V _{DO Typ} (V)	I _{Q Typ} (mA)	PSR R (dB)	Noise (μV _{rms})	Enable	Power Good	Application	Package Type
NCP718AMT250TBG	0.1933	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.5	0.3	2.5	24	0.3	0.004	60	75	Yes	No		WDF N-6
NCP718AMT330TBG	0.1933	Pb-free Halide free non AEC-Q and PPAP	Active														WDF N-6
NCP718AMT500TBG	0.1933	Pb-free Halide free non AEC-Q and PPAP	Active														WDF N-6
NCP718AMTADJTBG	0.1933	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	Adj	0.3	2.5	24		0.004	60	36	Yes	No		WDF N-6
NCP718ASN120T1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.2	0.3	2.5	24	1.3	0.004	60	36	Yes	No		TSO T-23-5
NCP718ASN150T1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.5	0.3	2.5	24	1	0.004	60	45	Yes	No		TSO T-23-5
NCP718ASN180T1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.8	0.3	2.5	24	0.7	0.004	60	48	Yes	No		TSO T-23-5
NCP718ASN250T1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.5	0.3	2.5	24	0.32	0.004	60	75	Yes	No		TSO T-23-5
NCP718ASN300T1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3	0.3	2.5	24	0.29	0.004	60	90	Yes	No		TSO T-23-5
NCP718ASN330T1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	0.3	2.5	24	0.27	0.004	60	99	Yes	No		TSO T-23-5
NCP718ASN500T1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	5	0.3	2.5	24	0.24	0.004	60	150	Yes	No		TSO T-23-5
NCP718ASNADJT1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	Adj	0.3	2.5	24		0.004	60	36	Yes	No		TSO T-23-5
NCP718BMT330TBG	0.1933	Pb-free Halide free non AEC-Q and PPAP	Active														WDF N-6
NCP718BMT500TBG	0.1933	Pb-free Halide free non AEC-Q and PPAP	Active														WDF N-6
NCP718BMTADJTBG		Pb-free Halide free non AEC-Q and PPAP	Product Preview	Single	Positive	Adj	0.3	2.5	24		0.004	60	36	Yes	No		WDF N-6
NCP718BSN120T1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.2	0.3	2.5	24	1.3	0.004	60	36	Yes	No		TSO T-23-5

NCP718BSN150T1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.5	0.3	2.5	24	1	0.004	60	45	Yes	No		TSO T-23- 5
NCP718BSN180T1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	1.8	0.3	2.5	24	0.7	0.004	60	48	Yes	No		TSO T-23- 5
NCP718BSN250T1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	2.5	0.3	2.5	24	0.32	0.004	60	75	Yes	No		TSO T-23- 5
NCP718BSN300T1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3	0.3	2.5	24	0.29	0.004	60	90	Yes	No		TSO T-23- 5
NCP718BSN330T1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	3.3	0.3	2.5	24	0.27	0.004	60	99	Yes	No		TSO T-23- 5
NCP718BSN500T1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	5	0.3	2.5	24	0.24	0.004	60	150	Yes	No		TSO T-23- 5
NCP718BSNADJT1G	0.1411	Pb-free Halide free non AEC-Q and PPAP	Active	Single	Positive	Adj	0.3	2.5	24		0.004	60	36	Yes	No		TSO T-23- 5

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