

NIC COMPONENTS CORPORATION POWER INDUCTORS

NIC COMPONENTS CORPORATION'S new **NPI AND NPIS SERIES** of Surface Mount Power Inductors offer the design engineer a broad range of choices for their power inductor requirements. With a wide selection of inductance values, current ratings and sizes the NPI series of power inductors are ideally suited for use in DC-DC converters, DC-AC converters and other power supply applications. Both **shielded** and **non-shield** parts are available including miniature and low profile sizes for use in notebook computers and PDA's.

Applications / Functions:

Provides wide range of inductance value, current rating and low DC resistance (DCR) for wide range of power management and voltage conversion applications.








- Power supplies, DC-DC Converters
- Voltage regulator modules (VRMs)
- Point of load (POL) voltage regulation
- Portable: Laptop, Hand-held devices

Types of equipment potentially using SMT inductors include: Automotive, Barcode Loggers - Scanners, DC-DC Converters, Industrial Controls, Low Noise Power Supplies, Low Pass Elliptic Filters, Medical Electronics, Monitors, Motor Control Systems, Power Sources, Power Supplies, Power Switchers, SMPS, Switching DC-DC converters, Video Compression and Wireless Systems and Equipment.

Trends

Industry wide trend towards low voltage - high current circuit operation is fueling use of reduced size SMT style power inductors. Incorporation of point-of-load voltage conversion and conditioning has also increased requirements for power SMT inductors.

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Series		Description	Temperature Range	Value Range	Isat Max.	Page Number
	NPI_L	Non-Shielded, Closed Frame, Low Profile	-20°C ~ +105°C	1.2µH ~ 330µH	2.1A	2 ~ 3
	NPI_C	Non-Shielded, Open Frame	-40°C ~ +105°C	1µH ~ 820µH	3.8A	4 ~ 12
	NPI_W	Non-Shielded, Open Frame	-40°C ~ +125°C	1.0µH ~ 1,000µH	8.6A	13 ~ 17
	NPI_P	Non-Shielded, Open Frame	-40°C ~ +85°C	0.33µH ~ 15µH	30A	18 ~ 20
	NPIS_D	Shielded, Closed Frame, Miniature	-55°C ~ +125°C	1.2µH ~ 180µH	3.0A	21 ~ 25
	NPIS_R	Shielded, Closed Frame	-40°C ~ +125°C	1.0µH ~ 10,000µH	7.0A	26 ~ 31
	NPIS_H	Shielded, Closed Frame	-25°C ~ +85°C	1.2µH ~ 1,000µH	9.8A	32 ~ 37
	NPIS_P	Shielded, Closed Frame, Low Profile	-55°C ~ +125°C	0.1µH ~ 10µH	56A	38 ~ 39