

NIC PRODUCT PROFILE

NSPL series

Low ESL Solid Polymer Aluminum Electrolytic Capacitors



www.niccomp.com/catalog/nspl.pdf
www.niccomp.com/series/NSPL

Lower ESL Upgrade
 NSP & NPC → NSPL



NIC Components is pleased to announce the addition of NSPL series of three terminal low ESL solid polymer aluminum electrolytic capacitors, to its expanded SMT solid polymer capacitor products offering. Third terminal construction greatly decreases the impedance loop, and reduces the equivalent series inductance (ESL) of the NSPL series by up to 50%, as compared to standard 2-terminal construction.

NSPL series covers 68uF to 560uF capacitance values, with voltage ratings of 2.0VDC, 2.5VDC, 4.0VDC & 6.3VDC, and is supplied in low profile 7343 case size, with 1.0mm, 1.1mm, 1.4mm and 1.9mm heights. NSPL series is ideal for use as high speed decoupling capacitors, mounted in close proximity or adjacent to microprocessors to minimize and suppress high frequency noise, where use of NSPL can often replace multiple components.

NSPL series feature 100KHz ripple current ratings of 6.3Arms to 10.2Arms (+45°C/100KHz) with ultra-low 100KHz ESR, down to 0.003ohm (3mΩ). Solid polymer technology has stable performance advantages over high capacitance X5R & X7R MLCCs. NSPL's immunity to piezo-electric ringing (singing), stability over applied VDC voltage, and elimination of cracking failures (all common weaknesses of MLCCs) makes NSPL an upgrade replacement for high cap MLCCs.

NSPL has operating temperature range -55°C to +105°C, is halogen free, RoHS compliant and supplied on carrier tape for automated pick and placement followed by Pb-free +260°C reflow soldering. Typical unit prices from \$0.29 to \$0.59 each in production volumes.

FEATURES & ADVANTAGES:

- Decoupling and noise suppression in high-speed circuits
- Improved response time in power circuits
- Reduce the number of decoupling components used
- Reduce PCB size - costs and component placement costs
- Wide operating range of -55°C to +105°C
- Stable with voltage, temperature and time
- No voltage derating
- Reduce noise (ripple voltage)
- Eliminates piezoelectric ringing & singing

Decoupling uProcessor



Co-sell with NIC Products:

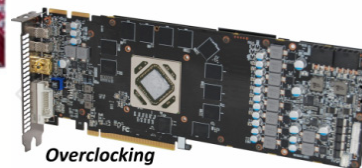
- NPIM_P** – SMT Power Inductors Metal Composite Shielded; High Current - Low Loss
- NCLP & NCLS** – Low cost Current Sensing Resistors
- NMC High Cap** – X5R and X7R MLCCs to 100uF with low ESR

Circuit Applications:

- High Speed Transient for IC Decoupling
- Output capacitor DC-DC
- Ripple (noise) Filtering
- Bulk Storage
- Load Stepping & Point of Load (POL)

End Products

- Servers & Routers
- Telecomm, Datacomm
- PCs, Tablets & Laptops
- Embedded Computing
- HD Video, Gaming
- Workstations
- Cellular Base Stations



→ Cross the below competitor PNs

Competitor	Product Series
Cornell Dubilier (CDE)	ESR
Kemet	A700 & T528
Murata	ECAS
Nichicon	RVA / FP CAP
Panasonic	EEF- / SP CAP



NIC Components Corp.



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