

NIC PRODUCT PROFILE

NSPE-J Series

**+150°C Rated Hybrid Construction
SMT Aluminum Electrolytic Capacitors**



www.niccomp.com/catalog/nspe-j.pdf
www.niccomp.com/series/NSPE-J

NIC Components is pleased to announce the addition of ultra-high temperature, +150°C rated, NSPE-J series of surface mount aluminum electrolytic capacitors, to its growing family of hybrid construction capacitors. Hybrid construction capacitors incorporate the best elements of both solid polymer and liquid electrolyte construction to provide ultra-low ESR, high ripple current ratings, with low leakage current and superior stability over voltage and temperature. With +150°C maximum temperature rating the NSPE-J series is ideal for use in applications where long lifetime at higher operating temperatures is required, such as automotive powertrain, industrial equipment and enterprise level networking systems.

NSPE-J series is produced at TS-16949 certified site, and meets the requirements of AEC-Q200, the passive components test standard for automotive grade components. NSPE-J series is rated for use over operating wide temperature range of -40°C to +150°C and is supported in capacitance values from 100uF to 330uF with ±20% (M) tolerance, and voltage ratings of 25VDC & 35VDC. Hybrid (liquid and solid polymer) capacitor construction provides advantage of self-healing, high surge voltage resistance, stability with applied voltage and open mode wear-out, as compared to solid construction capacitors. Supplied in 8x10.5mm, 10x10.5mm and 10x12.5mm case sizes (DØ x H) on tape for high speed automated pick and placement. NSPE-J series meets PB-Free reflow conditions, up to +260°C, and is RoHS Compliant without exemptions, halogen free and REACH SVHC 169 compliant.

FEATURES & ADVANTAGES:

- Wide operating temperature -40degC to +150degC
- ~24,000 hours estimated lifetime at +105degC
- Best performance aspects polymer & liquid constructions
- Stable ESR & Z over Temperature
- Stable capacitance value over voltage (VDC)
- Low ESR & High Ripple Current ratings
- Reduce the number of components used
- Reduce PCB size - costs and component placement costs
- Low leakage current, upgrade over solid polymer type

Action: Contact NIC today, for free evaluation samples and to review your application requirements



**AEC
Q200**

+150°C = NSPE-J
↑
+135°C = NSPE-Y
↑
+125°C = NSPE-TF

Circuit Applications:

- Output Filter in Power Circuits (DC-DC)
- Buffering Load Transients
- Ripple (noise) Filtering
- Load Stepping & Point of Load (POL)
- Bulk Energy Storage

End Products

- Automotive Powertrain
- Power Supplies
- Industrial Controls
- Motor Controls-Drives
- Mobile Communications
- Embedded Computing
- Smart Grid (Metering)
- Networking Equipment
- Lighting - Displays – HD Video

Co-sell with NIC Products:



NPIM– SMT Metal Composite Power Inductors High Current & Low Loss



NCLS Series - Metal Foil on Ceramic Current Sensing Resistors



NMC-A – Auto Grade NPO & X7R MLCCs

→ Cross & replace competitor +150°C PNs

Competitor	Product Series
ELNA	RTQ___
Nichicon	UBC___
Vishay BCcomp	160 CLA (MAL2160...)



Cross & Replacement Support ... tpmg@niccomp.com