



BUILT TO WIN
VISHAY EVERYDAY

AMERICAS SALES CONFERENCE

Temperature Sensor & Inrush Current Protection Solutions

March 2026





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Why is temperature measurement critical in today's electronic systems?

- Ensures System Reliability and Longevity
- Provides Protection Against Overheating
- Optimizes Performance
- Enables Precise Controls and Predictive Maintenance
- Reduces Warranty Risk
- Drives Design Confidence

Accurate temperature sensing keeps systems running safely and efficiently. VISHAY sensors give engineers the precision and consistency they can trust – plus the flexibility to customize for their exact design needs.





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“Thermistors in Every Corner. Customers in Every Conversation”

Our approach is to **collaborate** directly with **design engineers** to best understand the **challenges** they face and work together to identify an existing product from our vast offering of options or engineer a new, customized product – all in the interest of finding **the best fit solution** to meet the unique requirements of the customer application.

Our temperature sensor & circuit protection offerings are designed to be accurate, reliable and sustainable solutions for our customers across automotive, industrial and consumer electronics markets.

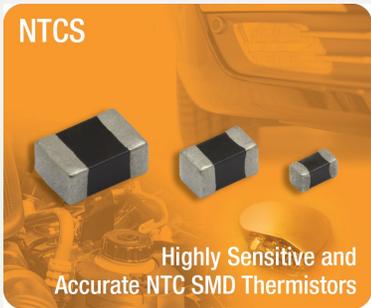


Focus Products

Snapshot

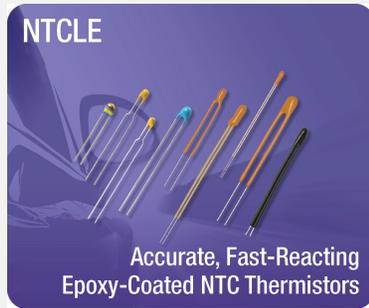
NTC Thermistors

NTCS



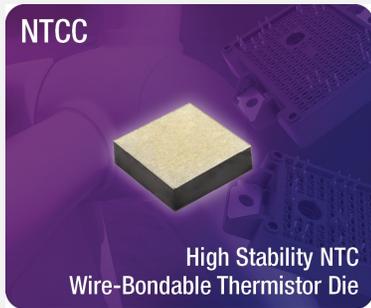
Highly Sensitive and Accurate NTC SMD Thermistors

NTCLE



Accurate, Fast-Reacting Epoxy-Coated NTC Thermistors

NTCC



High Stability NTC Wire-Bondable Thermistor Die

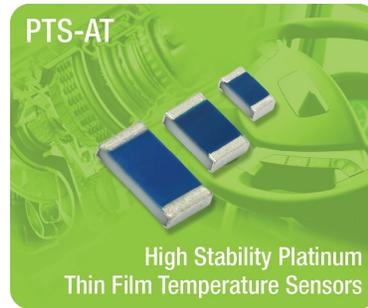
NTCA



Customizable NTC Temperature Sensor Assemblies

Resistance Temperature Detectors (RTDs)

PTS-AT



High Stability Platinum Thin Film Temperature Sensors

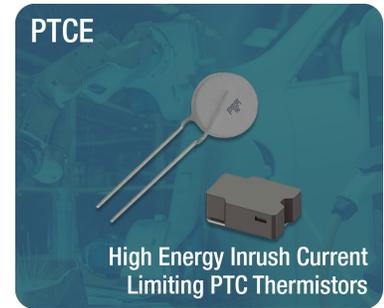
TFPT



Linear Tracking, High Stability Nickel Thin Film PTC Thermistors

PTC Thermistors

PTCE



High Energy Inrush Current Limiting PTC Thermistors

PPTC



Polymer PTC SMD "resettable fuses" for Overcurrent Protection



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Commercial NLR Product Roadmap 2025 to 2027



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NTCSI 0402, 0603



PB-Free NTCS
(0402, 0603, 0805)



Halogen free
products for AI
server applications,
Lug



NTC IMMERSION probe
for industrial and
commercial use



NTC sensor for fire
detectors



Rugged NTC (H)EV
thermistor on strip



NTC PROBE for
Heat Pumps

2025
Q3/Q4

2026 Q1

2026 Q2

2026 Q3



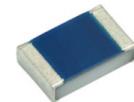
NTCSC 0201



Polymer PTC



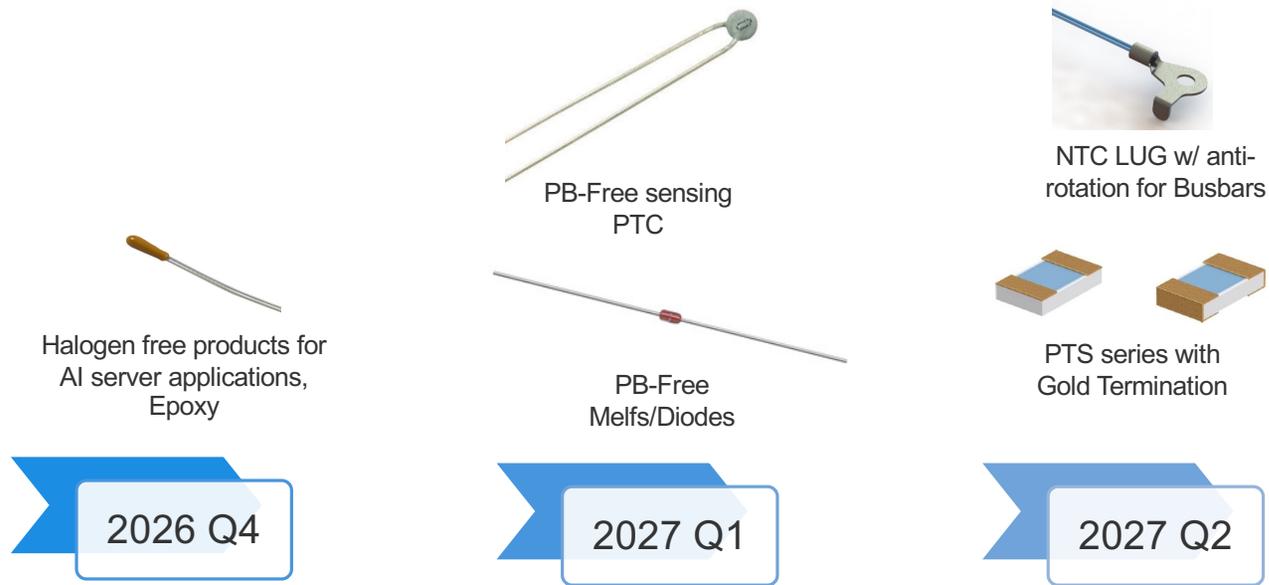
NTC SMD 0603 10k
Low B PB-Free and
Enhanced Stability



PTS0805 1kΩ



Commercial NLR Product Roadmap 2025 to 2027



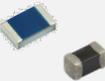


The DNA of tech.®

Automotive

- Battery Management 
- Inverters 
- On/Offboard Chargers 
- Power Modules 
- Electric Motors/TMAP 
- Liquid Cooling 

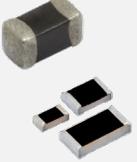
Industrial

- AI Datacenters 
- Instruments / Metering 
- Fabrication Equipment 
- Energy Storage Systems 

Consumer

- Domestic Appliances 
- Power Tools 
- Wearables 
- HVAC / Detection 

AMS

- Satellites (LEO/MEO) 

Medical

- Implantable (non-life sustaining) 



Growth Applications

Value Proposition – NTC & RTD Temperature Sensors



How to Engage Customer? Topic: Thermal Management

- Where do you measure/monitor Temp? Off board or on board? What is the media, Air, Fluid, or Surface?
- What is critical for your product's performance? Time response? Accuracy at certain T°? Protection at High Voltage?
- Vishay 'complete/custom temp solution' simplify your supply chain
- Vishay design tools reduce your design cycle



How to Win?:

- Functional sensing element is our core competence
- Material stability ensures lifetime system reliability
- Large and competitive offering of catalog solutions
- Design ingenuity with decades of experience in customized sensor probes to fit unique customer requirements
- Non-China country of origin solutions



VISHAY
AD VISHAY ANTAGE

Value Proposition — Inrush Current Limiting PTCs



How to Engage Customer?

- Probe interest in inrush current limitation for cap charging
- Emphasize on Performance and Reliability
- Provide OTS samples
- Offer design-in services like simulation tools and models
- Stay present with thoughtful check-ins and tailored content



How to Win?:

- Higher energy in smaller package for high voltage systems
- Insulated low-profile SMD solutions
- Self-protecting, repeatable behavior superior to alternate resistive solutions
- AEC-Q200 qualified
- Withstanding of 100k+ inrush cycles



VISHAY
ADVANTAGE

Value Proposition — Resettable Over-Current Protection Polymer PPTCs



How to Engage Customer?

- Ask about resettable fuses or “polyfuse” use cases
- Emphasize on Features and Performance
- Provide OTS samples
- Offer design-in services like simulation tools and models
- Stay present with thoughtful check-ins and tailored content



How to Win?:

- Smaller packages for higher currents and low voltage drop
- Low-profile SMD solutions
- Fast response time to overload
- Reduced max surface temperature
- Compatible with high temp solders

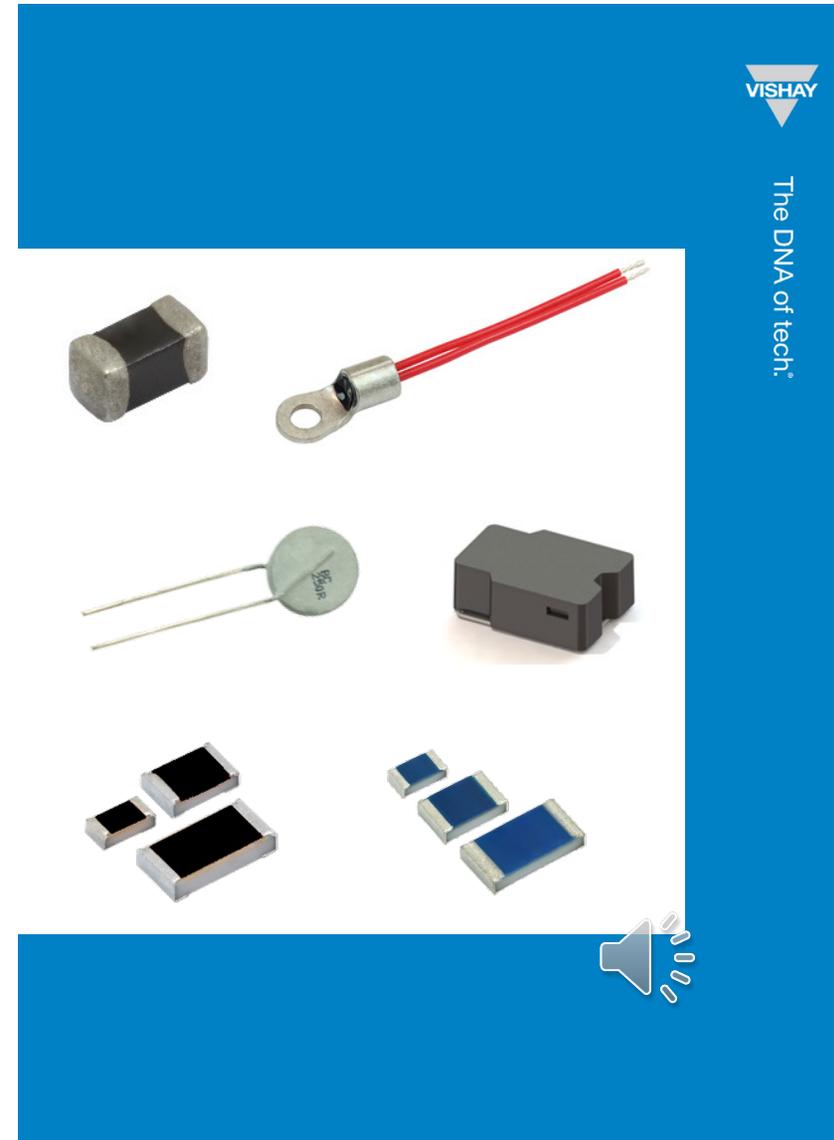


VISHAY
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Capacity Investments

Growth Lines

- **NTC:**
 - 25% increase Automotive lines ✓
 - New Comm/Ind. grade NTCS lines ✓
- **PTCE:**
 - 30% increase ✓
- **TFPT / PTS:**
 - 20% increase ✓



Design Resources & Selling Tools



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Regional technical support with advanced R&D and engineering teams ready to support unique customer requirements with NPД



SPICE Models



NTC/PTC Thermistors Electronic Simulation Series

Watch Now

NTC THERMISTORS VIRTUAL BOARD

Choose the right product for your application

View all of our NTCLE series

NTCSC - NTC/PTC Surface-Mount NTC Thermistors

PTCES Inrush Current Limiting Thermistors

NTCALUG

NTC RT Calculation Tool

Go To Calculator

VISHAY NTC LUG SERIES

Vishay offers several customization options, both as and mechanical, however our customization capabilities extend much further with each request being independently evaluated.

Some of the most common options are listed below to assist you with completing the custom request form.

- Electrical NTC Characteristics**
 - NTC (e.g. NTC) tolerance, NTC (e.g. NTC) tolerance
- Scorer Size**
 - Options include but not limited to: 1/20, 1/16, 1/8, 1/4, 1/2, 3/4, 1, 1 1/2, 2, 3, 4, 6, 8, 10, 12, 15, 20, 25, 30, 40, 50, 60, 75, 100, 125, 150, 200, 250, 300, 400, 500, 600, 750, 1000, 1250, 1500, 2000, 2500, 3000, 4000, 5000, 6000, 7500, 10000, 12500, 15000, 20000, 25000, 30000, 40000, 50000, 60000, 75000, 100000, 125000, 150000, 200000, 250000, 300000, 400000, 500000, 600000, 750000, 1000000, 1250000, 1500000, 2000000, 2500000, 3000000, 4000000, 5000000, 6000000, 7500000, 10000000, 12500000, 15000000, 20000000, 25000000, 30000000, 40000000, 50000000, 60000000, 75000000, 100000000, 125000000, 150000000, 200000000, 250000000, 300000000, 400000000, 500000000, 600000000, 750000000, 1000000000, 1250000000, 1500000000, 2000000000, 2500000000, 3000000000, 4000000000, 5000000000, 6000000000, 7500000000, 10000000000, 12500000000, 15000000000, 20000000000, 25000000000, 30000000000, 40000000000, 50000000000, 60000000000, 75000000000, 100000000000, 125000000000, 150000000000, 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Customers in Every Conversation”** 