



The DNA of tech.®

The Art of Thermistors

NTC - SMD

NTCS....E3...SMT

Monolithic with Ni and Sn
Glass protected
-40 °C to +150 °C
Tolerance on R_{25} down to 1 %
Full range in 0402, 0603, and 0805 case sizes
AEC-Q200 qualified

NTC - SMD

NTCS....E3....T

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Glass protected
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Full range in 0402, 0603, and 0805 case sizes
AEC-Q200 qualified

NTC - SMD

NTCC200E4
NTCC201E4
NTCC300E4
NTCC200E3C90008

Flat chip metallized (Ag or Au)
Suitable for wire bonding
-55 °C to +175 °C
Resistant to thermal shocks and leaching
AEC-Q200 qualified

NTC - SMD

NTCSMELFE3...

SOD-80 glass encapsulated
Diameter down to 1.7 mm
Response time down to 0.9 s
For corrosive atmospheres and harsh environments

NTC - SMD

NTCSC.....E3...T

With Ni and Sn
Commercial-grade
-40 °C to 125 °C
Two ranges: 10 k Ω to 100 k Ω in 0201 / 0402
Not recommended for automotive

NTC - SMD

NTCSI.....E3...T

With Ni and Sn
Industrial-grade
-40 °C to 125 °C
One range: 10 k Ω to 100 k Ω in 0402
Recommended for demanding applications (non-auto)

NTC - LEADED

NTCLE100E3...

Wide resistance range
Blue marked
High conductivity copper wire

NTC - LEADED

NTCLE201E3C90028

Long and flexible leads for special mounting
Fast response time < 1.5 s
Small head diameter

NTC - LEADED

NTCLE203E3...

High accuracy
Tolerance down to 1 %
Stability over a long lifetime
Low heat conductivity
Thin nickel wires

NTC - LEADED

NTCLE203E3...SB0

2-point accurate sensor
Tolerance down to 0.5 %
-55 °C to +150 °C
Stable, withstands thermal shock
AEC-Q200 qualified

NTC - LEADED

NTCLE301E4C90059

Long and flexible leads
Small diameter
Accuracy of ± 0.4 °C at 0 °C
Designed for cold temperature applications

NTC - LEADED

NTCLE305E4...SB

Miniature epoxy ETFE insulated leads
Fast reacting and accurate
Exceptional withstanding to thermal shocks
AEC-Q200 qualified

NTC - LEADED

NTCLE213E3...

Advanced mini sensor
-55 °C to +150 °C
Thermal shock resistant
Fast response time
High sensitivity
AEC-Q200 qualified

NTC - LEADED

NTCLE400...

Special long lead sensors
Accuracy over wide temperature range
High stability and excellent price / performance ratio

NTC - LEADED

NTCLE413...
NTCLE428...

Mini PVC insulated leads
Battery sensor
Accurate down to ± 0.3 °C
Small body of 3 mm max. for easy installation

NTC - LEADED

NTCLG100E2...

SOD-27 glass encapsulated
Temperature up to 200 °C
Diameter down to 1.8 mm
Response time down to 0.9 s
For corrosive atmospheres and harsh environments

NTC - LEADED

NTCLE317E4103SBA

2-point temperature sensor
 ± 0.5 %
Flexible PEEK leads
Fast response time of 0.9 s
For corrosive atmospheres and harsh environments
1.6 mm max

NTC - LEADED

NTCLE350E4

Flexible PEEK leads
Wide resistance range
Small diameter
AEC-Q200 qualified
Wide temperature range: -55 °C / 185 °C

NTC - ASSEMBLIES

NTCLP100...

Special long lead sensors
Accuracy over a wide temperature range
High stability and excellent price / performance ratio

NTC - ASSEMBLIES

NTCLP450E3...

Pipe type with fast response time and high stability
High resistance to humidity
Accurate over a wide temperature range

NTC - ASSEMBLIES

NTCALUG01T

Robust surface sensor
150 °C long term stability
Easy mounting M3 with 2.7 kV_{AC} insulation voltage
ETFE insulated 600 V_{AC} rated AWG26 cable
AEC-Q200 qualified

NTC - ASSEMBLIES

NTCALUG01A...
NTCALUG91A...
NTCALUG54A...
NTCALUG85A...

Robust surface sensor
-55 °C to +150 °C
Easy mounting M3, M3.5, M4, M5
Rugged construction
PTFE insulated cable | 600 V_{AC} rated AWC24 cable
AEC-Q200 qualified

NTC - ASSEMBLIES

NTCALUG02A...

Low thermal gradient surface sensor
Tolerance on R_{25} down to 1 %
PEEK AWG30 nickel wires
AEC-Q200 qualified

NTC - ASSEMBLIES

NTCALUG03A/39A

Miniature surface sensor
Fast response time
Low thermal mass
Stud screw mounted M2 / M3
AEC-Q200 qualified

NTC - ASSEMBLIES

NTCASCWE3...

Screw-threaded sensors
Easy mounting M4
Rugged construction
For surface temperature applications

NTC - ASSEMBLIES

NTCACAP...

Refrigerator sensors
Enabling class A+++
Very good water, moisture, and ice resistance
Thermal cycle resistant

NTC - ASSEMBLIES

NTCAFLEX05...

Flex foil sensor for narrow space applications
Response time down to 2 s
Insulated and humidity-resistant
AEC-Q200 qualified

NTC - ASSEMBLIES

NTCAIMME3...

Stainless steel immersion sensor
Fast response time
Reduced thermal gradient
For permanent contact with liquids

NTC - ASSEMBLIES

NTCASRFE4C90132

Surface temperature sensor with triangular shape housing
Fast response time
Mounted in a gauge or with a spring

NTC - ASSEMBLIES

NTCAIMM21Y...

Stainless steel immersion sensor
Fast response time
For liquid-cooled EV systems

NTC - ASSEMBLIES

NTCASCW78R

Stainless steel immersion sensor
Screw M8
For industrial use

PTC - SMD

PTCTZ...R....TT

Overload protection
30 V_{RMS} to 300 V_{RMS}
Fast response time to overload
Low heat transfer

PTC - SMD

PTCES

Inrush current limiting
440 V_{RMS} to 800 V_{RMS} (1200 V_{DC})
High energy absorption from 240 J to 340 J

PTC - LEADED

PTCSL03...

Over-temperature protection
Fast response time
Tolerance of ± 5 °C
Excellent long term behavior

PTC - LEADED

PTCCL...D/E/F/H/S/T/V

For overload protection
30 V to 1000 V
Small trip-hold ratio of 1.5
High maximum overload current

PTC - LEADED

PTCEL...

Inrush current limiting
350 V_{RMS} to 800 V_{RMS} (1200 V_{DC})
High energy absorption from 150 J to 340 J

RTD - SMD

PTS...0... (PTS)

Platinum thin film chip
0603, 0805, and 1206 sizes
RO: 100 Ω to 1000 Ω
Short reaction times
High accuracy and stability

RTD - SMD

PTS...M... (PTS AT)

Platinum thin film chip
High accuracy and stability
Extended temperature range of -55 °C to +175 °C
Short reaction times
High thermal cycling capability
AEC-Q200 qualified

RTD - SMD

PTS...U... (PTS ATAU)

Gold terminations for conductive gluing
Platinum thin film chip
High accuracy and stability
Extended temperature range of -55 °C to +175 °C
Short reaction times
High thermal cycling capability
AEC-Q200 qualified

RTD - SMD

TFPT...

Nickel thin film chip
Wide resistance range
0603, 0805, and 1206 sizes
Tolerance on R_{25} down to 0.5 %
-55 °C to +150 °C
High stability
AEC-Q200 qualified

RTD - LEADED

TFPTL...

Thin film linear thermistors
Tolerance on R_{25} down to 1 %
-55 °C to +150 °C
High stability

LEADED

VDRS...

Standard surge
14 V_{RMS} to 680 V_{RMS}
 I_{surge} up to 6500 A (8/20 μ s)
Lead (Pb)-free and halogen-free

LEADED

VDRH...

High surge
11 V_{RMS} to 680 V_{RMS}
 I_{surge} up to 10 kA (8/20 μ s)
Lead (Pb)-free and halogen-free

LEADED

VDRUS

Ultra high surge
115 V_{RMS} to 680 V_{RMS}
 I_{surge} up to 13 kA (8/20 μ s)
Lead (Pb)-free and halogen-free

The

Varistor

Gallery

SMD

MLV...

Multilayer surge suppressor
Inherent bidirectional clamping
4 V_{RMS} to 95 V_{RMS}
Excellent energy / volume ratio
Sizes 0402 up to 2220

LEADED

VDRS...

Standard surge
14 V_{RMS} to 680 V_{RMS}
 I_{surge} up to 6500 A (8/20 μ s)
Lead (Pb)-free and halogen-free

LEADED

VDRH...

High surge
11 V_{RMS} to 680 V_{RMS}
 I_{surge} up to 10 kA (8/20 μ s)
Lead (Pb)-free and halogen-free

LEADED

VDRUS

Ultra high surge
115 V_{RMS} to 680 V_{RMS}
 I_{surge} up to 13 kA (8/20 μ s)
Lead (Pb)-free and halogen-free

LEGEND

Negative Temperature Coefficient (NTC):

■ NTC - SMD (Surface-Mount Device)

■ NTC - Leaded (Through-Hole)

■ NTC - Assemblies

Positive Temperature Coefficient (PTC):

■ PTC - SMD (Surface-Mount Device)

■ PTC - Leaded (Through-Hole)

Thin Film - Resistance Temperature Detectors (RTD):

■ RTD - SMD (Surface-Mount Device)

■ RTD - Leaded (Through-Hole)

Voltage Dependent Resistors:

■ Varistors - SMD (Surface-Mount Device)

■ Varistors - Leaded (Through-Hole)

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Vishay Intertechnology manufactures a broad range of thermistors. We provide one-stop service to engineers who need industry-leading components for demanding and diverse applications.



***UNFOLD OUR
THERMISTORS'
CAPABILITIES***