

Power NTC Thermistors For Limiting Inrush Current-PS Series (Silicone Resin Coating) Data Sheet

Feature

■ Wide diameter range from $\phi 5$ to $\phi 20$

■ Operating Temperature



| Style | Operating Temperature Range |
|---|--|
| $\phi 5$ | $-40^{\circ}\text{C} \sim 155^{\circ}\text{C}$ |
| $\phi 7 / \phi 9 / \phi 11$ | $-40^{\circ}\text{C} \sim 175^{\circ}\text{C}$ |
| $\phi 13 / \phi 15 / \phi 20 / \phi 25$ | $-40^{\circ}\text{C} \sim 200^{\circ}\text{C}$ |

■ Storage Temperature: $15^{\circ}\text{C} \sim 35^{\circ}\text{C}$

Applications

■ Suitable for power supply, electronic motors, transformers, adapters, projectors, halogen machines, LED drive circuits, etc.

Applicable Standard

| Approval | Organization | Safety Standards | Certificate No. |
|--|--------------|------------------|-----------------|
| China  | CQC | GB/T 6663.1 | CQC15001128226 |
| USA Canada  | UL | UL 1434 | E474052 |

Part Number Code

| | | | | | | | | | | | |
|----|----|-----|----|---|---|---|----|---|---|---|---|
| MF | 05 | 100 | X8 | M | 3 | B | X7 | C | S | B | 0 |
|----|----|-----|----|---|---|---|----|---|---|---|---|

Songtian
MF:NTC

Zero Power Resistance
0R5:0.5Ω
080:8Ω
100:10Ω
121:120Ω

Tolerance
M:±20%

Pitch
B:5.0mm
E:7.5mm
D:10.0mm

Package
B: Bulk
T: Tape

Inner Management

Encapsulation material
Environmental Standard
S:Silicone+RoHS
F:Silicone +Halogen-Free

Core Diameter
05:5mm
20:20mm

Foot Type
1:Long straight
2:Outside Crimped
3:Short Straight
4:Inside kink lead
8:Vertical Crimped

Lead Material
C:Copper wire

Maximum Steady State Current
X1:0.1A
S5:1.5A
03:3.0A
10:10A

Lead Length
S0~S9:1.0~1.9mm
X0~X9:2.0~2.9mm
A0~A9:3.0~3.9mm
B0~B9:4.0~4.9mm
C0~C9:5.0~5.9mm
D0~D9:6.0~6.9mm
E0~E9:7.0~7.9mm

Lead Length
F0~F9:8.0~8.9mm
G0~G9:9.0~9.9mm
H0~H9:10.0~10.9mm
J0~J9:11.0~11.9mm
K0~K9:12.0~12.9mm
L0~L9:13.0~13.9mm
M0~M9:14.0~14.9mm

Lead Length
M0~M9:14.0~14.9mm
N0:16~27.0mm(Bulk)
Crimped Lead Taped
N0:H0=16.5mm
P0:H0=17.0mm
Q0:H0=19.0mm
Straight Lead
Q0:20.0mm

Electrical Characteristics

□ D-5 Series

| Part Number | Rated Zero Power Resistance @25°C (Ω) | Maximum Steady Current @25°C (A) | Residual Resistor At Maximum Steady Current @25°C (Ω) | B Value (K) ±10% | Thermal Time Constant (S) | Heat Dissipation Coefficient (mW/°C) | Operating Temperature Range (°C) | Approval | |
|-------------|---------------------------------------|----------------------------------|---|------------------|---------------------------|--------------------------------------|----------------------------------|----------|-----|
| | | | | | | | | CQC | cUL |
| 5D-5 | 5 | 1 | 0.353 | 2500 | <20 | >6 | -40°C~155°C | √ | √ |
| 8D-5 | 8 | 0.8 | 0.675 | 2600 | <20 | >6 | -40°C~155°C | | |
| 10D-5 | 10 | 0.7 | 0.771 | 2600 | <20 | >6 | -40°C~155°C | √ | √ |
| 15D-5 | 15 | 0.6 | 1.53 | 2600 | <20 | >6 | -40°C~155°C | √ | √ |
| 20D-5 | 20 | 0.5 | 1.253 | 2600 | <20 | >6 | -40°C~155°C | √ | √ |
| 22D-5 | 22 | 0.6 | 2.06 | 2600 | <20 | >6 | -40°C~155°C | √ | √ |
| 30D-5 | 30 | 0.4 | 2.227 | 2600 | <20 | >6 | -40°C~155°C | √ | √ |

| Part Number | Rated Zero Power Resistance @25°C (Ω) | Maximum Steady Current @25°C (A) | Residual Resistor At Maximum Steady Current @25°C (Ω) | B Value (K) ±10% | Thermal Time Constant (S) | Heat Dissipation Coefficient (mW/°C) | Operating Temperature Range (°C) | Approval | |
|-------------|---------------------------------------|----------------------------------|---|------------------|---------------------------|--------------------------------------|----------------------------------|----------|-----|
| | | | | | | | | CQC | cUL |
| 33D-5 | 33 | 0.4 | 1.324 | 2600 | <20 | >6 | -40°C~155°C | √ | √ |
| 50D-5 | 50 | 0.4 | 2.653 | 2800 | <18 | >6 | -40°C~155°C | √ | √ |
| 60D-5 | 60 | 0.3 | 1.878 | 2800 | <18 | >6 | -40°C~155°C | √ | √ |

□D-7 Series

| Part Number | Rated Zero Power Resistance @25°C (Ω) | Maximum Steady Current @25°C (A) | Residual Resistor At Maximum Steady Current @25°C (Ω) | B Value (K) ±10% | Thermal Time Constant (S) | Heat Dissipation Coefficient (mW/°C) | Operating Temperature Range (°C) | Approval | |
|-------------|---------------------------------------|----------------------------------|---|------------------|---------------------------|--------------------------------------|----------------------------------|----------|-----|
| | | | | | | | | CQC | cUL |
| 3D-7 | 3 | 2 | 0.218 | 2600 | <30 | >10 | -40°C~175°C | √ | |
| 5D-7 | 5 | 2 | 0.283 | 2600 | <30 | >10 | -40°C~175°C | √ | √ |
| 8D-7 | 8 | 1 | 0.539 | 2600 | <28 | >9 | -40°C~175°C | √ | √ |
| 10D-7 | 10 | 1 | 0.616 | 2800 | <27 | >9 | -40°C~175°C | √ | √ |
| 12D-7 | 12 | 1 | 0.816 | 2800 | <27 | >9 | -40°C~175°C | √ | √ |
| 16D-7 | 16 | 0.7 | 1.003 | 2800 | <27 | >9 | -40°C~175°C | √ | √ |
| 20D-7 | 20 | 0.6 | 1.102 | 2800 | <27 | >9 | -40°C~175°C | √ | √ |
| 22D-7 | 22 | 0.6 | 1.108 | 2800 | <27 | >9 | -40°C~175°C | √ | √ |
| 30D-7 | 30 | 0.5 | 3.7059 | 2800 | <28 | >10 | -40°C~175°C | √ | √ |
| 33D-7 | 33 | 0.2 | 1.485 | 2800 | <28 | >10 | -40°C~175°C | √ | √ |
| 50D-7 | 50 | 0.5 | 1.653 | 2800 | <28 | >10 | -40°C~175°C | √ | √ |

□D-9 Series

| Part Number | Rated Zero Power Resistance @25°C (Ω) | Maximum Steady Current @25°C (A) | Residual Resistor At Maximum Steady Current @25°C (Ω) | B Value (K) ±10% | Thermal Time Constant (S) | Heat Dissipation Coefficient (mW/°C) | Operating Temperature Range (°C) | Approval | |
|-------------|---------------------------------------|----------------------------------|---|------------------|---------------------------|--------------------------------------|----------------------------------|----------|-----|
| | | | | | | | | CQC | cUL |
| 3D-9 | 3 | 4 | 0.120 | 2600 | <35 | >11 | -40°C~175°C | √ | √ |
| 4D-9 | 4 | 3 | 0.190 | 2600 | <35 | >11 | -40°C~175°C | √ | √ |
| 5D-9 | 5 | 3 | 0.210 | 2600 | <34 | >11 | -40°C~175°C | √ | √ |
| 6D-9 | 6 | 2 | 0.315 | 2600 | <34 | >11 | -40°C~175°C | √ | √ |
| 7D-9 | 7 | 2 | 0.3265 | 2800 | <34 | >11 | -40°C~175°C | √ | √ |

| Part Number | Rated Zero Power Resistance @25°C (Ω) | Maximum Steady Current @25°C (A) | Residual Resistor At Maximum Steady Current @25°C (Ω) | B Value (K) ±10% | Thermal Time Constant (S) | Heat Dissipation Coefficient (mW/°C) | Operating Temperature Range (°C) | Approval | |
|-------------|---------------------------------------|----------------------------------|---|------------------|---------------------------|--------------------------------------|----------------------------------|----------|-----|
| | | | | | | | | CQC | cUL |
| 8D-9 | 8 | 2 | 0.400 | 2800 | <32 | >11 | -40°C~175°C | √ | √ |
| 10D-9 | 10 | 2 | 0.458 | 2800 | <32 | >11 | -40°C~175°C | √ | √ |
| 12D-9 | 12 | 1 | 0.652 | 2800 | <32 | >11 | -40°C~175°C | √ | √ |
| 16D-9 | 16 | 1 | 0.802 | 2800 | <31 | >11 | -40°C~175°C | √ | √ |
| 20D-9 | 20 | 1 | 0.864 | 3000 | <30 | >11 | -40°C~175°C | √ | √ |
| 22D-9 | 22 | 1 | 0.950 | 3000 | <30 | >11 | -40°C~175°C | √ | √ |
| 30D-9 | 30 | 1 | 1.022 | 3000 | <30 | >11 | -40°C~175°C | √ | √ |
| 33D-9 | 33 | 1 | 1.124 | 3000 | <30 | >11 | -40°C~175°C | √ | √ |
| 50D-9 | 50 | 1 | 1.252 | 3200 | <30 | >11 | -40°C~175°C | √ | √ |
| 60D-9 | 60 | 0.8 | 1.502 | 3200 | <31 | >11 | -40°C~175°C | √ | √ |
| 80D-9 | 80 | 0.8 | 2.010 | 3200 | <30 | >11 | -40°C~175°C | √ | √ |
| 120D-9 | 120 | 0.8 | 3.015 | 3200 | <30 | >11 | -40°C~175°C | √ | √ |
| 200D-9 | 200 | 0.5 | 5.007 | 3400 | <32 | >11 | -40°C~175°C | √ | √ |

□D-11 Series

| Part Number | Rated Zero Power Resistance @25°C (Ω) | Maximum Steady Current @25°C (A) | Residual Resistor At Maximum Steady Current @25°C (Ω) | B Value (K) ±10% | Thermal Time Constant (S) | Heat Dissipation Coefficient (mW/°C) | Operating Temperature Range (°C) | Approval | |
|-------------|---------------------------------------|----------------------------------|---|------------------|---------------------------|--------------------------------------|----------------------------------|----------|-----|
| | | | | | | | | CQC | cUL |
| 1.5D-11 | 1.5 | 5 | 0.065 | 2600 | <43 | >13 | -40°C~175°C | √ | |
| 2.5D-11 | 2.5 | 5 | 0.095 | 2600 | <43 | >13 | -40°C~175°C | √ | √ |
| 3D-11 | 3 | 5 | 0.100 | 2600 | <43 | >13 | -40°C~175°C | √ | √ |
| 4D-11 | 4 | 4 | 0.150 | 2600 | <44 | >13 | -40°C~175°C | √ | √ |
| 5D-11 | 5 | 4 | 0.156 | 2800 | <45 | >13 | -40°C~175°C | √ | √ |
| 6D-11 | 6 | 3 | 0.240 | 2800 | <45 | >13 | -40°C~175°C | √ | √ |
| 7D-11 | 7 | 3 | 0.2824 | 2800 | <45 | >13 | -40°C~175°C | √ | √ |
| 8D-11 | 8 | 3 | 0.255 | 2800 | <47 | >14 | -40°C~175°C | √ | √ |
| 10D-11 | 10 | 3 | 0.275 | 2800 | <47 | >14 | -40°C~175°C | √ | √ |
| 12D-11 | 12 | 2 | 0.462 | 2800 | <48 | >14 | -40°C~175°C | √ | √ |
| 15D-11 | 15 | 2 | 0.468 | 2800 | <50 | >14 | -40°C~175°C | √ | √ |
| 16D-11 | 16 | 2 | 0.470 | 2800 | <50 | >14 | -40°C~175°C | √ | √ |
| 20D-11 | 20 | 2 | 0.512 | 3000 | <52 | >15 | -40°C~175°C | √ | √ |
| 22D-11 | 22 | 2 | 0.563 | 3000 | <52 | >15 | -40°C~175°C | √ | √ |

| Part Number | Rated Zero Power Resistance @25°C (Ω) | Maximum Steady Current @25°C (A) | Residual Resistor At Maximum Steady Current @25°C (Ω) | B Value (K) ±10% | Thermal Time Constant (S) | Heat Dissipation Coefficient (mW/°C) | Operating Temperature Range (°C) | Approval | |
|-------------|---------------------------------------|----------------------------------|---|------------------|---------------------------|--------------------------------------|----------------------------------|----------|-----|
| | | | | | | | | CQC | cUL |
| 25D-11 | 25 | 2 | 0.623 | 3000 | <52 | >15 | -40°C ~ 175°C | √ | √ |
| 30D-11 | 30 | 1.5 | 0.667 | 3000 | <52 | >15 | -40°C ~ 175°C | √ | √ |
| 33D-11 | 33 | 1.5 | 0.734 | 3000 | <52 | >15 | -40°C ~ 175°C | √ | √ |
| 47D-11 | 47 | 1.5 | 1.002 | 3200 | <52 | >15 | -40°C ~ 175°C | √ | √ |
| 50D-11 | 50 | 1.5 | 1.021 | 3200 | <52 | >15 | -40°C ~ 175°C | √ | √ |
| 60D-11 | 60 | 1.5 | 1.215 | 3200 | <52 | >15 | -40°C ~ 175°C | √ | √ |
| 80D-11 | 80 | 1.2 | 1.656 | 3200 | <52 | >15 | -40°C ~ 175°C | √ | √ |
| 120D-11 | 120 | 1.1 | 2.253 | 3000 | <50 | >15 | -40°C ~ 175°C | √ | √ |

□D-13 Series

| Part Number | Rated Zero Power Resistance @25°C (Ω) | Maximum Steady Current @25°C (A) | Residual Resistor At Maximum Steady Current @25°C (Ω) | B Value (K) ±10% | Thermal Time Constant (S) | Heat Dissipation Coefficient (mW/°C) | Operating Temperature Range (°C) | Approval | |
|-------------|---------------------------------------|----------------------------------|---|------------------|---------------------------|--------------------------------------|----------------------------------|----------|-----|
| | | | | | | | | CQC | cUL |
| 1.3D-13 | 1.3 | 7 | 0.062 | 2600 | <60 | >13 | -40°C ~ 200°C | √ | √ |
| 1.5D-13 | 1.5 | 7 | 0.073 | 2600 | <60 | >13 | -40°C ~ 200°C | √ | √ |
| 2.5D-13 | 2.5 | 6 | 0.088 | 2600 | <60 | >13 | -40°C ~ 200°C | √ | √ |
| 3D-13 | 3 | 6 | 0.092 | 2600 | <60 | >14 | -40°C ~ 200°C | √ | √ |
| 4D-13 | 4 | 5 | 0.120 | 2800 | <67 | >15 | -40°C ~ 200°C | √ | √ |
| 4.7D-13 | 4.7 | 5 | 0.1469 | 2800 | <67 | >15 | -40°C ~ 200°C | √ | √ |
| 5D-13 | 5 | 5 | 0.125 | 2800 | <68 | >15 | -40°C ~ 200°C | √ | √ |
| 6D-13 | 6 | 4 | 0.170 | 2800 | <65 | >15 | -40°C ~ 200°C | √ | √ |
| 7D-13 | 7 | 4 | 0.188 | 3000 | <65 | >15 | -40°C ~ 200°C | √ | √ |
| 8D-13 | 8 | 4 | 0.194 | 3000 | <60 | >15 | -40°C ~ 200°C | √ | √ |
| 10D-13 | 10 | 4 | 0.206 | 3000 | <65 | >15 | -40°C ~ 200°C | √ | √ |
| 12D-13 | 12 | 3 | 0.316 | 3200 | <65 | >16 | -40°C ~ 200°C | √ | √ |
| 15D-13 | 15 | 3 | 0.335 | 3200 | <60 | >16 | -40°C ~ 200°C | √ | √ |
| 16D-13 | 16 | 3 | 0.338 | 3200 | <60 | >16 | -40°C ~ 200°C | √ | √ |
| 18D-13 | 18 | 3 | 0.356 | 3200 | <60 | >16 | -40°C ~ 200°C | √ | √ |
| 20D-13 | 20 | 3 | 0.372 | 3200 | <65 | >16 | -40°C ~ 200°C | √ | √ |
| 22D-13 | 22 | 3 | 0.625 | 3200 | <65 | >16 | -40°C ~ 200°C | √ | √ |
| 25D-13 | 25 | 2.5 | 0.422 | 3200 | <65 | >16 | -40°C ~ 200°C | √ | √ |

| Part Number | Rated Zero Power Resistance @25°C (Ω) | Maximum Steady Current @25°C (A) | Residual Resistor At Maximum Steady Current @25°C (Ω) | B Value (K) ±10% | Thermal Time Constant (S) | Heat Dissipation Coefficient (mW/°C) | Operating Temperature Range (°C) | Approval | |
|-------------|---------------------------------------|----------------------------------|---|------------------|---------------------------|--------------------------------------|----------------------------------|----------|-----|
| | | | | | | | | CQC | cUL |
| 30D-13 | 30 | 2.5 | 0.517 | 3200 | <65 | >16 | -40°C~200°C | √ | √ |
| 33D-13 | 33 | 2.5 | 0.592 | 3200 | <65 | >16 | -40°C~200°C | √ | √ |
| 47D-13 | 47 | 2 | 0.810 | 3200 | <65 | >17 | -40°C~200°C | √ | √ |
| 50D-13 | 50 | 2 | 1.161 | 3200 | <65 | >13 | -40°C~200°C | √ | √ |
| 120D-13 | 120 | 1.2 | 2.124 | 3400 | <65 | >17 | -40°C~200°C | √ | √ |

☑D-15 Series

| Part Number | Rated Zero Power Resistance @25°C (Ω) | Maximum Steady Current @25°C (A) | Residual Resistor At Maximum Steady Current @25°C (Ω) | B Value (K) ±10% | Thermal Time Constant (S) | Heat Dissipation Coefficient (mW/°C) | Operating Temperature Range (°C) | Approval | |
|-------------|---------------------------------------|----------------------------------|---|------------------|---------------------------|--------------------------------------|----------------------------------|----------|-----|
| | | | | | | | | CQC | cUL |
| 1.3D-15 | 1.3 | 8 | 0.048 | 2600 | <68 | >18 | -40°C~200°C | √ | √ |
| 1.5D-15 | 1.5 | 8 | 0.052 | 2600 | <69 | >18 | -40°C~200°C | √ | √ |
| 2.5D-15 | 2.5 | 7 | 0.065 | 2800 | <76 | >18 | -40°C~200°C | √ | √ |
| 3D-15 | 3 | 7 | 0.075 | 2800 | <76 | >18 | -40°C~200°C | √ | √ |
| 4D-15 | 4 | 6 | 0.1985 | 2800 | <76 | >18 | -40°C~200°C | √ | √ |
| 5D-15 | 5 | 6 | 0.112 | 3000 | <76 | >20 | -40°C~200°C | √ | √ |
| 6D-15 | 6 | 5 | 0.155 | 3000 | <80 | >20 | -40°C~200°C | √ | √ |
| 7D-15 | 7 | 5 | 0.173 | 3000 | <80 | >20 | -40°C~200°C | √ | √ |
| 8D-15 | 8 | 5 | 0.178 | 3000 | <80 | >20 | -40°C~200°C | √ | √ |
| 10D-15 | 10 | 5 | 0.180 | 3200 | <75 | >20 | -40°C~200°C | √ | √ |
| 12D-15 | 12 | 4 | 0.250 | 3200 | <75 | >20 | -40°C~200°C | √ | √ |
| 15D-15 | 15 | 4 | 0.268 | 3200 | <85 | >21 | -40°C~200°C | √ | √ |
| 16D-15 | 16 | 4 | 0.276 | 3200 | <70 | >21 | -40°C~200°C | √ | √ |
| 18D-15 | 18 | 4 | 0.3375 | 3200 | <70 | >21 | -40°C~200°C | √ | √ |
| 20D-15 | 20 | 4 | 0.288 | 3200 | <86 | >21 | -40°C~200°C | √ | √ |
| 22D-15 | 22 | 4 | 0.3812 | 3200 | <86 | >21 | -40°C~200°C | √ | √ |
| 25D-15 | 25 | 3.5 | 0.358 | 3200 | <86 | >21 | -40°C~200°C | √ | √ |
| 30D-15 | 30 | 3.5 | 0.438 | 3200 | <75 | >21 | -40°C~200°C | √ | √ |
| 33D-15 | 33 | 3 | 0.571 | 3200 | <86 | >21 | -40°C~200°C | √ | √ |
| 40D-15 | 40 | 3 | 0.587 | 3200 | <86 | >21 | -40°C~200°C | √ | √ |

| Part Number | Rated Zero Power Resistance @25°C (Ω) | Maximum Steady Current @25°C (A) | Residual Resistor At Maximum Steady Current @25°C (Ω) | B Value (K) ±10% | Thermal Time Constant (S) | Heat Dissipation Coefficient (mW/°C) | Operating Temperature Range (°C) | Approval | |
|-------------|---------------------------------------|----------------------------------|---|------------------|---------------------------|--------------------------------------|----------------------------------|----------|-----|
| | | | | | | | | CQC | cUL |
| 47D-15 | 47 | 3 | 0.680 | 3200 | <86 | >21 | -40°C~200°C | √ | √ |
| 50D-15 | 50 | 3 | 0.734 | 3200 | <86 | >21 | -40°C~200°C | √ | √ |
| 120D-15 | 120 | 1.8 | 1.652 | 3400 | <87 | >22 | -40°C~200°C | √ | √ |

□D-20 Series

| Part Number | Rated Zero Power Resistance @25°C (Ω) | Maximum Steady Current @25°C (A) | Residual Resistor At Maximum Steady Current @25°C (Ω) | B Value (K) ±10% | Thermal Time Constant (S) | Heat Dissipation Coefficient (mW/°C) | Operating Temperature Range (°C) | Approval | |
|-------------|---------------------------------------|----------------------------------|---|------------------|---------------------------|--------------------------------------|----------------------------------|----------|-----|
| | | | | | | | | CQC | cUL |
| 0.7D-20 | 0.7 | 11 | 0.018 | 2400 | <89 | >24 | -40°C~200°C | √ | √ |
| 1D-20 | 1 | 9 | 0.030 | 2600 | <88 | >24 | -40°C~200°C | √ | |
| 1.3D-20 | 1.3 | 9 | 0.037 | 2600 | <88 | >24 | -40°C~200°C | √ | √ |
| 2.2D-20 | 2.2 | 8 | 0.1292 | 2800 | <88 | >24 | -40°C~200°C | √ | √ |
| 2.5D-20 | 2.5 | 8 | 0.052 | 2800 | <88 | >24 | -40°C~200°C | √ | √ |
| 3D-20 | 3 | 8 | 0.055 | 2800 | <88 | >24 | -40°C~200°C | √ | √ |
| 5D-20 | 5 | 7 | 0.087 | 3000 | <87 | >24 | -40°C~200°C | √ | √ |
| 6D-20 | 6 | 6 | 0.113 | 3000 | <103 | >25 | -40°C~200°C | √ | √ |
| 8D-20 | 8 | 6 | 0.142 | 3000 | <105 | >25 | -40°C~200°C | √ | √ |
| 10D-20 | 10 | 6 | 0.162 | 3200 | <102 | >25 | -40°C~200°C | √ | √ |
| 12D-20 | 12 | 5 | 0.195 | 3200 | <100 | >25 | -40°C~200°C | √ | √ |
| 16D-20 | 16 | 5 | 0.212 | 3200 | <100 | >25 | -40°C~200°C | √ | √ |
| 20D-20 | 20 | 4.5 | 0.248 | 3200 | <105 | >25 | -40°C~200°C | √ | |
| 30D-20 | 30 | 4 | 0.355 | 3200 | <115 | >26 | -40°C~200°C | √ | |
| 33D-20 | 33 | 4 | 0.4495 | 3200 | <90 | >6 | -40°C~200°C | √ | |

□D-15 Series

| Part Number | Rated Zero Power Resistance @25°C (Ω) | Maximum Steady Current @25°C (A) | Residual Resistor At Maximum Steady Current @25°C (Ω) | B Value (K) ±10% | Thermal Time Constant (S) | Heat Dissipation Coefficient (mW/°C) | Operating Temperature Range (°C) | Approval | |
|-------------|---------------------------------------|----------------------------------|---|------------------|---------------------------|--------------------------------------|----------------------------------|----------|-----|
| | | | | | | | | CQC | cUL |
| 2.5D-25 | 2.5 | 9 | 0.135 | 2800 | <160 | >27 | -40°C~200°C | | |
| 3D-25 | 3 | 9 | 0.044 | 2800 | <124 | >32 | -40°C~200°C | | |
| 5D-25 | 5 | 8 | 0.070 | 3000 | <125 | >32 | -40°C~200°C | | |
| 10D-25 | 10 | 7 | 0.130 | 3200 | <127 | >32 | -40°C~200°C | | |
| 16D-25 | 16 | 6 | 0.160 | 3200 | <126 | >35 | -40°C~200°C | | |
| 20D-25 | 20 | 6 | 0.210 | 3200 | <126 | >35 | -40°C~200°C | | |

Dimensions (mm) and Approval



| Part No. | Size (mm) | | | |
|----------|-----------|--------|-------|--------|
| | D Max. | T Max. | F±0.8 | d±0.05 |
| □D-5 | 7.0 | 4.5 | 5.0 | 0.6 |
| □D-7 | 9.0 | 5.0 | 5.0 | 0.6 |
| □D-9 | 11.0 | 6.0 | 5.0 | 0.8 |
| □D-11 | 13.0 | 6.5 | 7.5 | 0.8 |
| □D-13 | 15.5 | 7.0 | 7.5 | 0.8 |
| □D-15 | 17.5 | 7.0 | 7.5 | 0.8 |
| □D-20 | 22.5 | 7.0 | 10.0 | 1.0 |
| □D-25 | 22.5 | 7.0 | 10.0 | 1.0 |

Lead Configuration

| Lead Style | Drawing | Lead Length L (mm) | Coating Lead Length C (mm) | Height H (mm) |
|------------------|---|--|----------------------------|---------------|
| Long Straight |  | 16.0 min | 3.0 Max | / |
| Short Straight |  | ① $[2.5 \leq L < 6.0] \pm 0.5$; ② $[6.0 \leq L \leq 10] \pm 1.0$ | 3.0 Max | / |
| Outside Crimped |  | ① $[2.5 \leq L < 6.0] \pm 0.5$; ② $[6.0 \leq L \leq 10] \pm 1.0$ | Not exceed the bend point | 5.0mm Max |
| Inner Crimped |  | ① $[2.5 \leq L < 6.0] \pm 0.5$; ② $[6.0 \leq L \leq 10] \pm 1.0$ | Not exceed the bend point | 6.0mm Max |
| Vertical Crimped |  | ① $[2.5 \leq L < 6.0] \pm 0.5$; ② $[6.0 \leq L \leq 10] \pm 1.0$ | Not exceed the bend point | 4.0mm Max |

Taping And Dimensions (mm)

| Figure | Fig.1 | | Fig.2 | | | | |
|--|--------------------|-----------------------------|-----------------------------|-----------------------------|--------------|---------------|--------------|
| | Symbol | P=5.0 | P=7.5 | | P=10.0 | | |
|  | Po | 12.7±0.3 | 12.7±0.3 | 12.7±0.3 | | | |
| | P | 12.7±1.0 | 25.4±1.0 | 25.4±1.0 | | | |
| | P1 | 3.85±0.7 | 8.95±0.7 | 7.7±0.7 | | | |
| | P2 | 6.35±1.3 | 12.7±1.3 | 12.7±1.3 | | | |
| | F | 5±0.8 | 7.5±0.8 | 10.0±0.8 | | | |
| | Δh | 0±2.0 | 0±2.0 | 0±2.0 | | | |
| | W | 18.0+1.5/-1.0 | 18.0 +1.5/-1.0 | 18.0 +1.5/-1.0 | | | |
| | Wo | 10.5 Max | 10.5 Max | 10.5 Max | | | |
| | W1 | 9.0+0.75/-0.5 | 9.0+0.75/-0.5 | 9.0+0.75/-0.5 | | | |
| | W2 | 3.0 Max | 3.0 Max | 3.0 Max | | | |
|  | Do | 4.0±0.2 | 4.0±0.2 | 4.0±0.2 | | | |
| | H | 20+1.5/-1.0 | 20+1.5/-1.0 | 20+1.5/-1.0 | | | |
| | Ho | 16.5&17.0&19.0 +1.5/-1.0 | 16.5&17.0&19.0 +1.5/-1.0 | 16.5&17.0&19.0 +1.5/-1.0 | | | |
| | L | Straight Lead | Crimped Lead | Straight Lead | Crimped Lead | Straight Lead | Crimped Lead |
| | | 11.0 Max | 9.0 Max | 11.0 Max | 9.0 Max | 11.0 Max | 9.0 Max |
| | t1 | 0.5±0.2 | 0.5±0.2 | 0.5±0.2 | | | |
| | Fig.2 (P=7.5 & 10) | t2 | 1.7 Max | 1.7 Max | 1.7 Max | | |

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