



负温度系数(NTC)热敏电阻器

Negative temperature coefficient (NTC) thermistor

MF72功率型NTC热敏电阻系列
MF72 Power NTC Thermistor series

● 特点

◎ 体积小、功率大，抑制浪涌电流能力强

◎ 反应速度快

◎ 材料常数(B值)大，残余电阻小

◎ 寿命长，可靠性高

◎ 系列全，应用范围宽

● 应用范围

◎ 转换电源，开关电源，UPS电源

◎ 电子节能灯，镇流器及各类加热器

◎ 各类显像管、显示器

◎ 白炽灯，其它照明灯具

● 安规认证 Approvals



◎ UL 1434 认证
(File # E 241319)
(仅限铜线、硅树脂产品)
(Only for the products with
silicon coating and cu)



◎ CQC 认证
(File # 04001010556)



◎ TUV 认证
(File # R50245892)

Characteristics

◎ Small size, strong power and strong capability of surge current protection

◎ Fast response to surge current

◎ Big material constant (B value), Small remain resistance

◎ Longevity of service, High reliability

◎ Integral series, extensive operating range

Applications

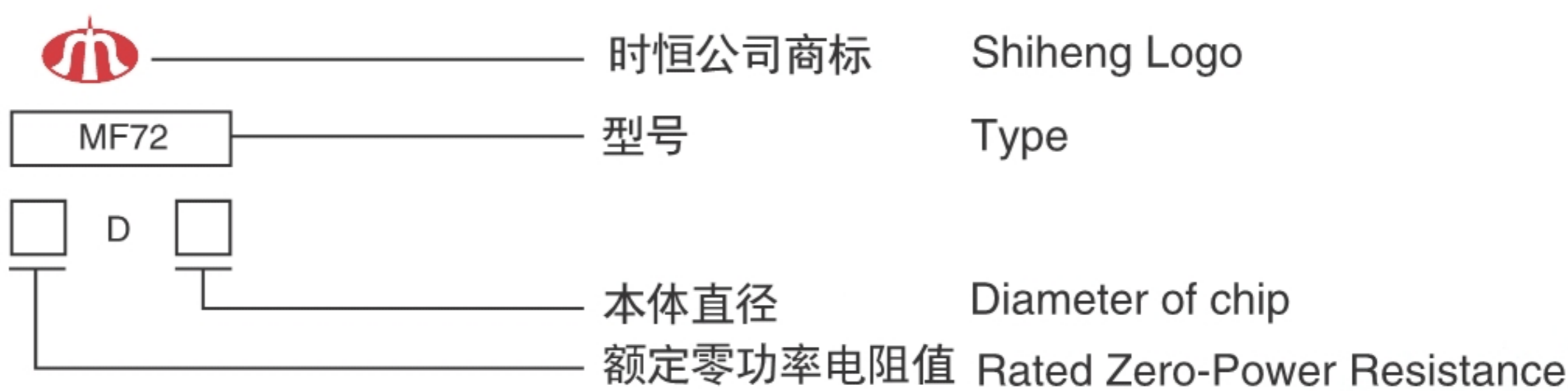
◎ Conversion power-supply, switch power, ups power

◎ Electronic energy saving lamps, electronic ballast and all kinds of electric heater

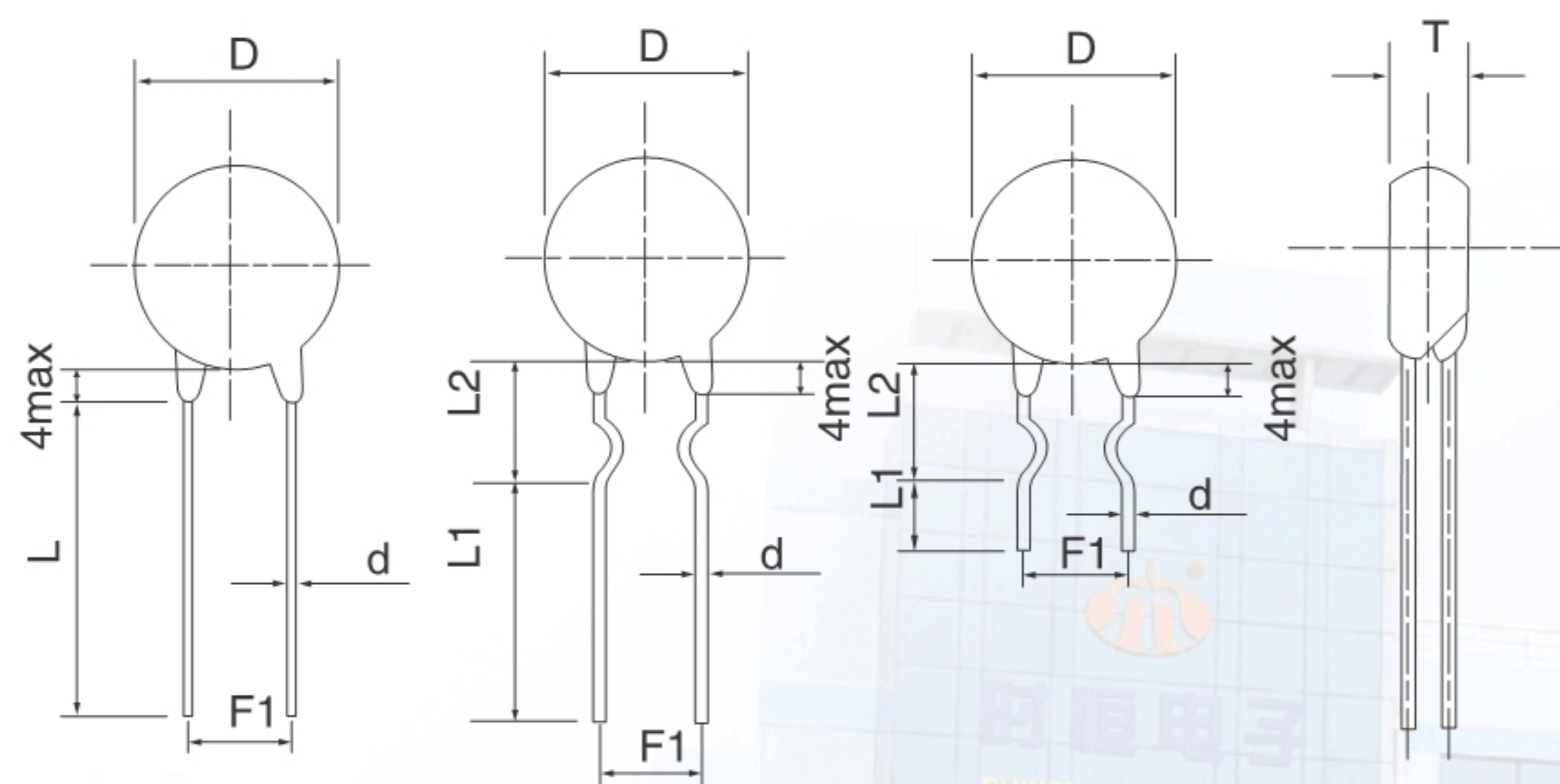
◎ All kinds of RT, display

◎ Bulb and other lighting lamps

● 产品标志说明 Specification



●外形尺寸 Dimensions(mm)



直引线
Straight lead

弯引线
Curved lead

切脚型
Cutting lead

| 尺寸 Dim(mm) 型号 Part No | 代号 Sym Dmax | T max | d ±0.05 | F1 ±1 | 直引线 Straight lead | | 弯引线 Curved lead | |
|--------------------------------|-------------------|----------|------------|----------|----------------------|--------------------|--------------------|--|
| | | | | | Lmin | L ₁ min | L ₂ ± 2 | |
| MF72 □D5 | 7.0 | 5 | 0.6/0.45 | 5/2.5 | 25 | 17/5 | 8/5 | |
| MF72 □D7 | 9.0 | 5 | 0.6 | 5 | 25 | 17/5 | 8/5 | |
| MF72 □D9 | 11.0 | 5.5 | 0.8/0.6 | 7.5/5 | 25 | 17/5 | 8/5 | |
| MF72 □D11 | 13.0 | 5.5 | 0.8 | 7.5/5 | 25 | 17/5 | 8/5 | |
| MF72 □D13 | 15.5 | 6 | 0.8 | 7.5 | 25 | 17/5 | 8/5 | |
| MF72 □D15 | 17.5 | 6 | 0.8 | 10/7.5 | 25 | 17/5 | 8/5 | |
| MF72 □D20 | 22.5 | 7 | 1.0 | 10/7.5 | 25 | / | / | |
| MF72 □D25 | 27.5 | 8 | 1.0 | 10/7.5 | 25 | / | / | |



MF72功率型NTC热敏电阻系列

MF72 Power NTC Thermistor series

● 主要技术参数 Main Technical Parameters

| 型号 Part No MF72 | R ₂₅ (Ω) | 最大稳态电流 (A) Max. Steady State Current | 最大电流时近似 电阻值 (Ω) Approx. R of Max. Cur.(Ω) | 耗散系数 约 (mw/°C) Dissi. Coef. (mW/°C) | 热时间常数 约 (s) Thermal time Constant(S) | 工作温度 (°C) Operating Temp. (°C) | UL |
|-----------------------|------------------------|---|--|--|---|---|----|
| 5D5 | 5 | 1 | 0.353 | 6 | 20 | -40~+150 | ✓ |
| 10D5 | 10 | 0.7 | 0.771 | 6 | 20 | -40~+150 | ✓ |
| 60D5 | 60 | 0.3 | 1.878 | 6 | 18 | -40~+150 | |
| 200D5 | 200 | 0.1 | 18.70 | 6 | 18 | -40~+150 | ✓ |
| 5D7 | 5 | 2 | 0.283 | 10 | 30 | -40~+150 | ✓ |
| 8D7 | 8 | 1 | 0.539 | 9 | 28 | -40~+150 | ✓ |
| 10D7 | 10 | 1 | 0.616 | 9 | 27 | -40~+150 | ✓ |
| 12D7 | 12 | 1 | 0.816 | 9 | 27 | -40~+150 | |
| 16D7 | 16 | 0.7 | 1.003 | 9 | 27 | -40~+150 | ✓ |
| 22D7 | 22 | 0.6 | 1.108 | 9 | 27 | -40~+150 | ✓ |
| 33D7 | 33 | 0.5 | 1.485 | 10 | 28 | -40~+150 | ✓ |
| 200D7 | 200 | 0.2 | 11.65 | 11 | 28 | -40~+150 | ✓ |
| 3D9 | 3 | 4 | 0.120 | 11 | 35 | -40~+170 | ✓ |
| 4D9 | 4 | 3 | 0.190 | 11 | 35 | -40~+170 | ✓ |
| 5D9 | 5 | 3 | 0.210 | 11 | 34 | -40~+170 | ✓ |
| 6D9 | 6 | 2 | 0.315 | 11 | 34 | -40~+170 | ✓ |
| 8D9 | 8 | 2 | 0.400 | 11 | 32 | -40~+170 | ✓ |
| 10D9 | 10 | 2 | 0.458 | 11 | 32 | -40~+170 | ✓ |
| 12D9 | 12 | 1 | 0.652 | 11 | 32 | -40~+170 | ✓ |
| 16D9 | 16 | 1 | 0.802 | 11 | 31 | -40~+170 | ✓ |
| 20D9 | 20 | 1 | 0.864 | 11 | 30 | -40~+170 | ✓ |
| 22D9 | 22 | 1 | 0.950 | 11 | 30 | -40~+170 | ✓ |
| 30D9 | 30 | 1 | 1.022 | 11 | 30 | -40~+170 | ✓ |
| 33D9 | 33 | 1 | 1.124 | 11 | 30 | -40~+170 | ✓ |
| 50D9 | 50 | 1 | 1.252 | 11 | 30 | -40~+170 | ✓ |
| 60D9 | 60 | 0.8 | 1.502 | 11 | 31 | -40~+170 | ✓ |
| 80D9 | 80 | 0.8 | 2.010 | 11 | 30 | -40~+170 | ✓ |
| 120D9 | 120 | 0.8 | 3.015 | 11 | 30 | -40~+170 | ✓ |
| 200D9 | 200 | 0.5 | 5.007 | 11 | 32 | -40~+170 | ✓ |
| 400D9 | 400 | 0.2 | 30.30 | 11 | 32 | -40~+170 | ✓ |
| 2.5D11 | 2.5 | 5 | 0.095 | 13 | 43 | -40~+170 | ✓ |
| 3D11 | 3 | 5 | 0.100 | 13 | 43 | -40~+170 | ✓ |
| 4D11 | 4 | 4 | 0.150 | 13 | 44 | -40~+170 | ✓ |
| 5D11 | 5 | 4 | 0.156 | 13 | 45 | -40~+170 | ✓ |
| 6D11 | 6 | 3 | 0.240 | 13 | 45 | -40~+170 | ✓ |
| 8D11 | 8 | 3 | 0.255 | 14 | 47 | -40~+170 | ✓ |
| 10D11 | 10 | 3 | 0.275 | 14 | 47 | -40~+170 | ✓ |
| 12D11 | 12 | 2 | 0.462 | 14 | 48 | -40~+170 | ✓ |
| 16D11 | 16 | 2 | 0.470 | 14 | 50 | -40~+170 | ✓ |
| 20D11 | 20 | 2 | 0.512 | 15 | 52 | -40~+170 | ✓ |
| 22D11 | 22 | 2 | 0.563 | 15 | 52 | -40~+170 | ✓ |
| 30D11 | 30 | 1.5 | 0.667 | 15 | 52 | -40~+170 | ✓ |
| 33D11 | 33 | 1.5 | 0.734 | 15 | 52 | -40~+170 | ✓ |
| 50D11 | 50 | 1.5 | 1.021 | 15 | 52 | -40~+170 | ✓ |
| 60D11 | 60 | 1.5 | 1.215 | 15 | 52 | -40~+170 | ✓ |
| 80D11 | 80 | 1.2 | 1.656 | 15 | 52 | -40~+170 | ✓ |
| 1.3D13 | 1.3 | 7 | 0.062 | 13 | 60 | -40 + 200 | ✓ |

| 型号 Part No MF72 | R ₂₅ (Ω) | 最大稳态电流 (A) Max. Steady State Current | 最大电流时近似 电阻值 (Ω) Approx. R of Max. Cur.(Ω) | 耗散系数 约 (mw/°C) Dissi. Coef. (mW/°C) | 热时间常数 约 (s) Thermal time Constant(S) | 工作温度 (°C) Operating Temp. (°C) | UL |
|-----------------------|------------------------|---|--|--|---|---|----|
| 1.5D13 | 1.5 | 7 | 0.073 | 13 | 60 | -40 + 200 | ✓ |
| 2.5D13 | 2.5 | 6 | 0.088 | 13 | 60 | -40 + 200 | ✓ |
| 3D13 | 3 | 6 | 0.092 | 14 | 60 | -40 + 200 | ✓ |
| 4D13 | 4 | 5 | 0.120 | 15 | 67 | -40 + 200 | ✓ |
| 5D13 | 5 | 5 | 0.125 | 15 | 68 | -40 + 200 | ✓ |
| 6D13 | 6 | 4 | 0.170 | 15 | 65 | -40 + 200 | ✓ |
| 7D13 | 7 | 4 | 0.188 | 15 | 65 | -40 + 200 | ✓ |
| 8D13 | 8 | 4 | 0.194 | 15 | 60 | -40 + 200 | ✓ |
| 10D13 | 10 | 4 | 0.206 | 15 | 65 | -40 + 200 | ✓ |
| 12D13 | 12 | 3 | 0.316 | 16 | 65 | -40 + 200 | ✓ |
| 15D13 | 15 | 3 | 0.335 | 16 | 60 | -40 + 200 | ✓ |
| 16D13 | 16 | 3 | 0.338 | 16 | 60 | -40 + 200 | ✓ |
| 20D13 | 20 | 3 | 0.372 | 16 | 65 | -40 + 200 | ✓ |
| 30D13 | 30 | 2.5 | 0.517 | 16 | 65 | -40 + 200 | ✓ |
| 47D13 | 47 | 2 | 0.810 | 17 | 65 | -40 + 200 | ✓ |
| 120D13 | 120 | 1.2 | 2.124 | 17 | 65 | -40 + 200 | ✓ |
| 1.3D15 | 1.3 | 8 | 0.048 | 18 | 68 | -40 + 200 | ✓ |
| 1.5D15 | 1.5 | 8 | 0.052 | 18 | 69 | -40 + 200 | ✓ |
| 2.5D15 | 2.5 | 7 | 0.065 | 18 | 76 | -40 + 200 | ✓ |
| 3D15 | 3 | 7 | 0.075 | 18 | 76 | -40 + 200 | ✓ |
| 5D15 | 5 | 6 | 0.112 | 20 | 76 | -40 + 200 | ✓ |
| 6D15 | 6 | 5 | 0.155 | 20 | 80 | -40 + 200 | ✓ |
| 7D15 | 7 | 5 | 0.173 | 20 | 80 | -40 + 200 | ✓ |
| 8D15 | 8 | 5 | 0.178 | 20 | 80 | -40 + 200 | ✓ |
| 10D15 | 10 | 5 | 0.180 | 20 | 75 | -40 + 200 | ✓ |
| 12D15 | 12 | 4 | 0.250 | 20 | 75 | -40 + 200 | ✓ |
| 15D15 | 15 | 4 | 0.268 | 21 | 85 | -40 + 200 | ✓ |
| 16D15 | 16 | 4 | 0.276 | 21 | 70 | -40 + 200 | ✓ |
| 20D15 | 20 | 4 | 0.288 | 21 | 86 | -40 + 200 | ✓ |
| 30D15 | 30 | 3.5 | 0.438 | 21 | 75 | -40 + 200 | ✓ |
| 47D15 | 47 | 3 | 0.680 | 21 | 86 | -40 + 200 | ✓ |
| 120D15 | 120 | 1.8 | 1.652 | 22 | 87 | -40 + 200 | ✓ |
| 0.7D20 | 0.7 | 11 | 0.018 | 24 | 89 | -40 + 200 | ✓ |
| 1.3D20 | 1.3 | 9 | 0.037 | 24 | 88 | -40 + 200 | ✓ |
| 3D20 | 3 | 8 | 0.055 | 24 | 88 | -40 + 200 | ✓ |
| 5D20 | 5 | 7 | 0.087 | 24 | 87 | -40 + 200 | ✓ |
| 6D20 | 6 | 6 | 0.113 | 25 | 103 | -40 + 200 | ✓ |
| 8D20 | 8 | 6 | 0.142 | 25 | 105 | -40 + 200 | ✓ |
| 10D20 | 10 | 6 | 0.162 | 25 | 102 | -40 + 200 | ✓ |
| 12D20 | 12 | 5 | 0.195 | 25 | 100 | -40 + 200 | ✓ |
| 16D20 | 16 | 5 | 0.212 | 25 | 100 | -40 + 200 | ✓ |
| 0.7D25 | 0.7 | 12 | 0.014 | 30 | 120 | -40 + 200 | ✓ |
| 1.5D25 | 1.5 | 10 | 0.027 | 30 | 121 | -40 + 200 | ✓ |
| 3D25 | 3 | 9 | 0.044 | 32 | 124 | -40 + 200 | ✓ |
| 5D25 | 5 | 8 | 0.070 | 32 | 125 | -40 + 200 | ✓ |
| 8D25 | 8 | 7 | 0.114 | 33 | 125 | -40 + 200 | ✓ |
| 10D25 | 10 | 7 | 0.130 | 32 | 127 | -40 + 200 | ✓ |
| 12D25 | 12 | 6 | 0.156 | 32 | 126 | -40 + 200 | ✓ |
| 16D25 | 16 | 6 | 0.160 | 35 | 126 | -40 + 200 | ✓ |

注：若非特别指出，R₂₅的允许偏差为±20%

Remark: Unless the particular indication, the allowable tolerance of R₂₅ is ±20%.