

SMD TYPE

Large-Current Power Inductor MPCG Series <Low-Loss Series>

[RoHS Compliant]

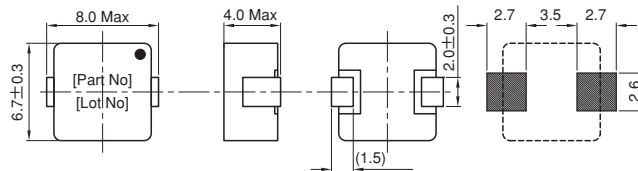


Model	Inductance (μH) at 100kHz	DC resistance ($\text{m}\Omega$) typ.	Rated current (A)	
			I _{rms} *1 (Ref.)	I _{sat} *2 (Ref.)
MPCG0740LR42	0.42 \pm 20%	1.55 \pm 10%	22.0	20.0
MPCG1040LR36	0.36 \pm 20%	1.05 \pm 10%	25.5	30.0
MPCG1040LR45	0.45 \pm 20%	1.10 \pm 10%	25.0	27.0

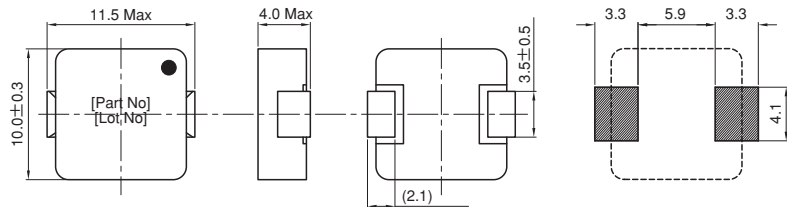
*1 T=40K rise at rated current. *2 Inductance drop 20% at rated current.
Operating temperature range:-20°C~+120°C (Include self temperature rise)

Shape and Dimensions Recommended Land Pattern

● MPCG0740LR42



● MPCG1040LR36
● MPCG1040LR45



[mm]

Numbering System

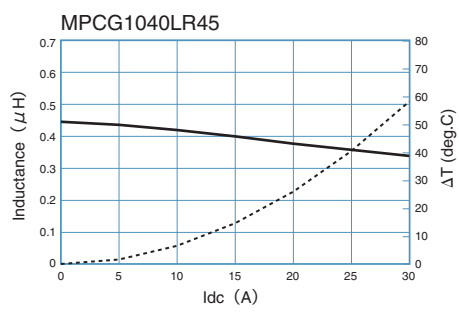
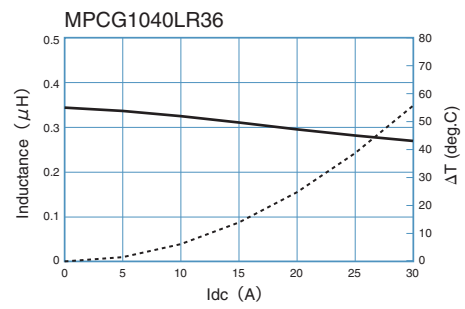
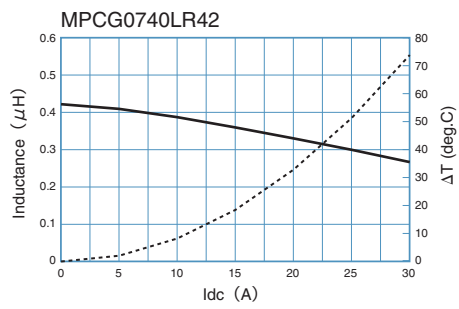
MPCG - 1040 - LR36

① ② ③

- ① Series
- ② Dimensions 10...WxD: 11.5x10 mm 40...H: 4.0 mm
- ③ Inductance R36...0.36 μH

SMD TYPE

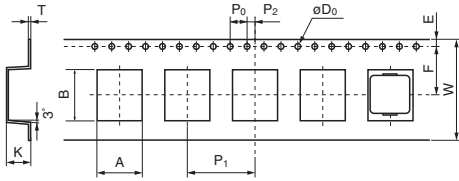
DC-Superposed Characteristics



SMD TYPE

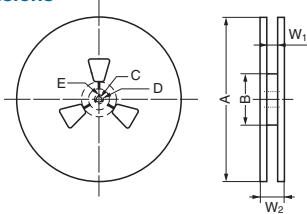
MPCG0740 Series (1000pcs./reel)

Dimensions of indented square hole plastic tape



											[mm]
A	B	W	F	E	P ₁	P ₂	P ₀	øD ₀	T	K	
±0.1	±0.1	±0.2	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05	±0.1	
7.0	8.0	16.0	7.5	1.75	12.0	2.0	4.0	1.55	0.4	5.3	

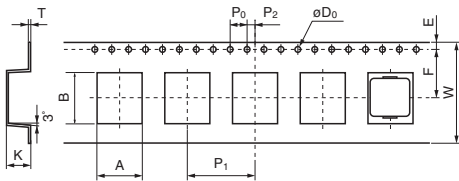
Reel dimensions



								[mm]
A	B	C	D	E	r	W ₁	W ₂	
±2.0	±1.0	±0.2	±0.8	±0.5		±1.0	±1.0	
ø330	ø80	ø13.0	ø21.0	2.0	R1.0	17.5	21.5	

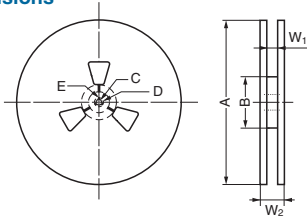
MPCG1040 Series (500pcs./reel)

Dimensions of indented square hole plastic tape



											[mm]
A	B	W	F	E	P ₁	P ₂	P ₀	øD ₀	T	K	
±0.1	±0.1	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05	±0.1	
10.5	12.1	24.0	11.5	1.75	16.0	2.0	4.0	1.55	0.4	5.2	

Reel dimensions



								[mm]
A	B	C	D	E	r	W ₁	W ₂	
±5.0	±5.0	±0.5	±1.0	±0.5		±2.0	±3.0	
ø330	ø80	ø13.5	ø21.0	2.0	R1.0	24.4	30.4	

SMD TYPE

Large-Current Power Inductor MPC Series

[RoHS Compliant]

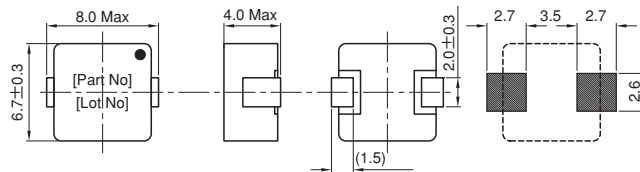


Model	Inductance (μH) at 100kHz	DC resistance (m Ω) typ.	Rated current (A)	
			I _{rms} *1 (Ref.)	I _{sat} *2 (Ref.)
MPC0740LR42C	0.42 \pm 20%	1.55 \pm 10%	22.0	20.0
MPC0750LR60C	0.60 \pm 20%	2.30 \pm 10%	17.0	19.0
MPC1040LR36C	0.36 \pm 20%	1.05 \pm 10%	25.5	30.0
MPC1040LR45C	0.45 \pm 20%	1.10 \pm 10%	25.0	27.0
MPC1040LR56C	0.56 \pm 20%	1.30 \pm 10%	23.0	25.0
MPC1040LR88C	0.88 \pm 20%	2.30 \pm 10%	17.0	24.0
MPC1055LR36C	0.36 \pm 20%	0.75 \pm 10%	32.0	35.0
MPC1055L1R0C	1.00 \pm 20%	2.30 \pm 10%	18.5	25.0
MPC1250LR36C	0.36 \pm 20%	0.65 \pm 10%	38.0	40.0
MPC1250LR50C	0.50 \pm 20%	0.80 \pm 10%	35.0	40.0

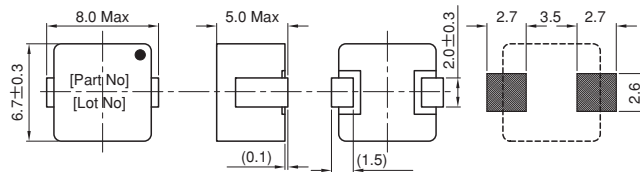
*1 T=40K rise at rated current. *2 Inductance drop 20% at rated current.
Operating temperature range:-20°C~+120°C (Include self temperature rise)

Shape and Dimensions Recommended Land Pattern

● MPC0740LR42C



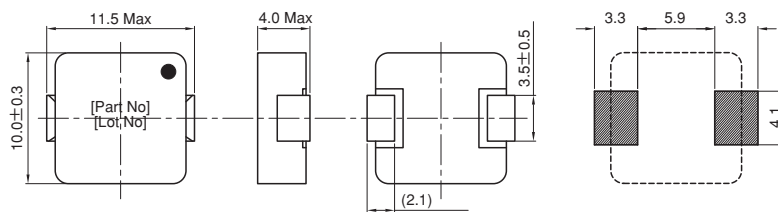
● MPC0750LR60C



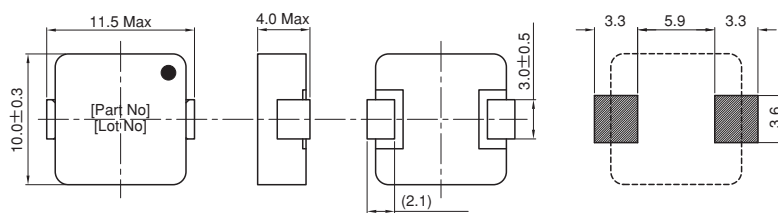
● MPC1040LR36C

● MPC1040LR45C

● MPC1040LR56C

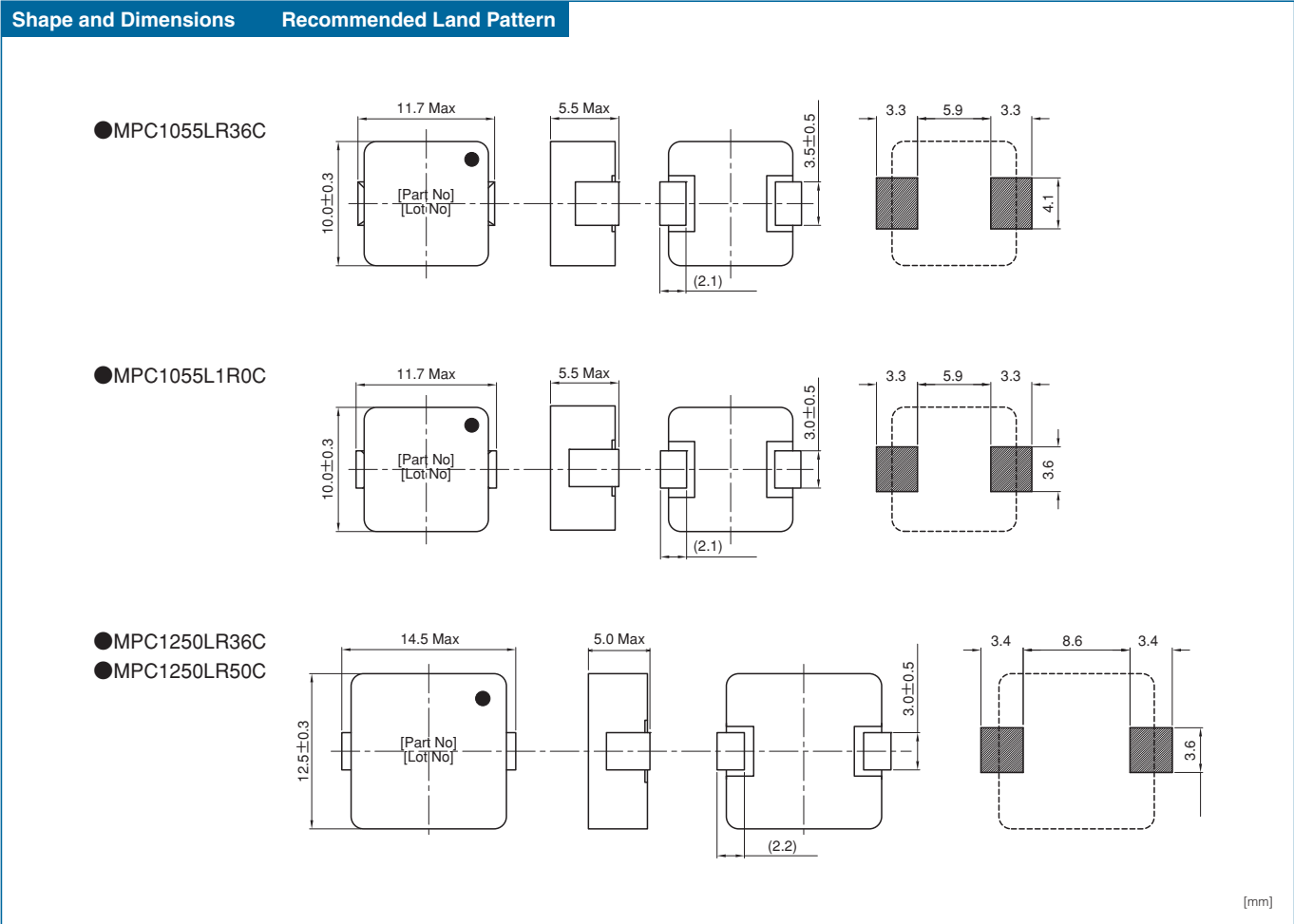


● MPC1040LR88C



[mm]

SMD TYPE



Numbering System

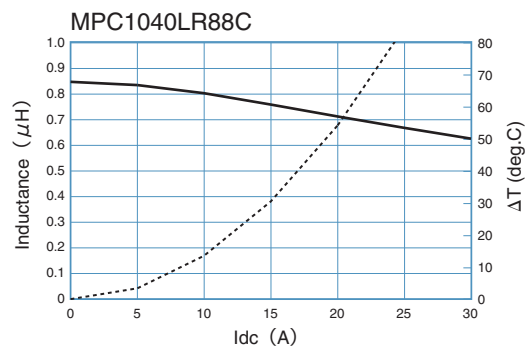
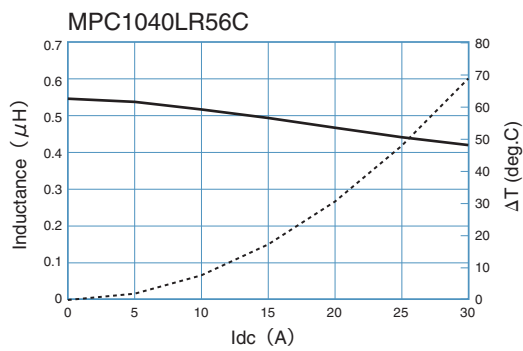
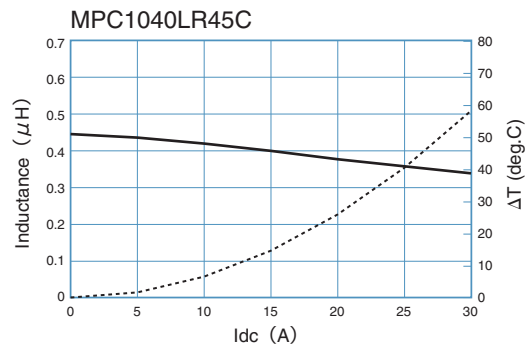
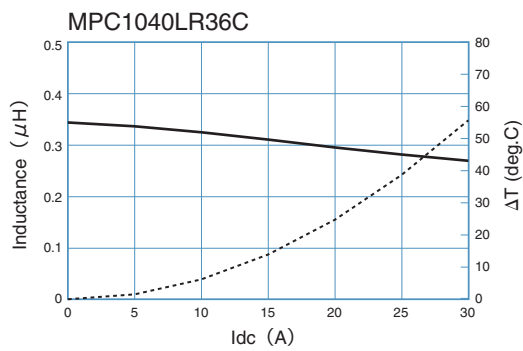
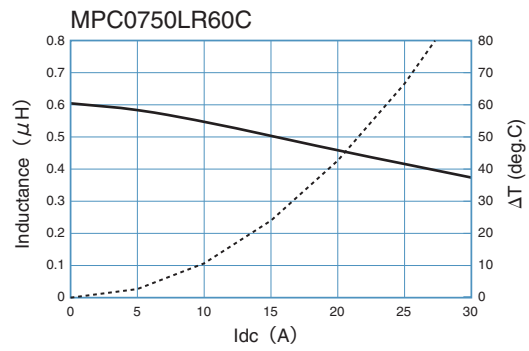
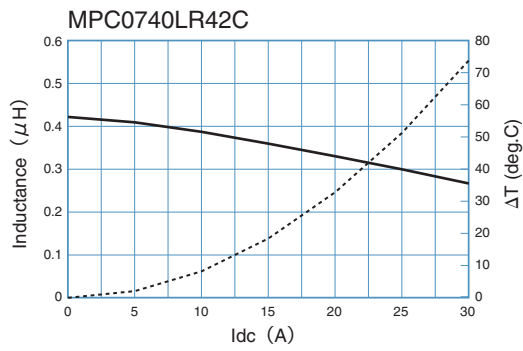
MPC - 1040 - LR36C

① ② ③

- ① Series
- ② Dimensions 10...WxD : 11.5×10 mm 40...H : 4.0 mm
- ③ Inductance R36...0.36μH

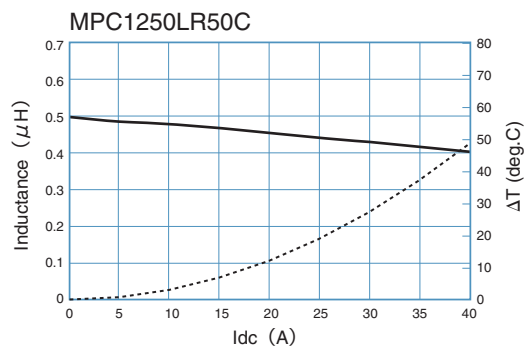
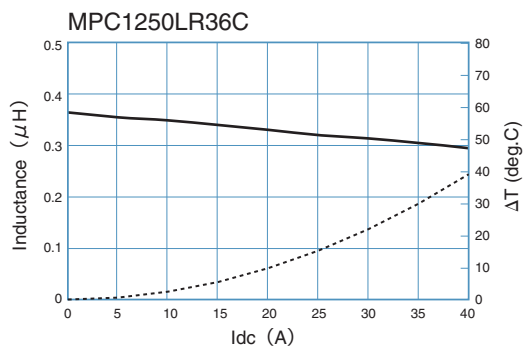
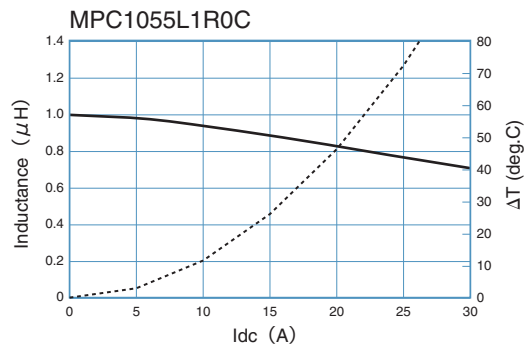
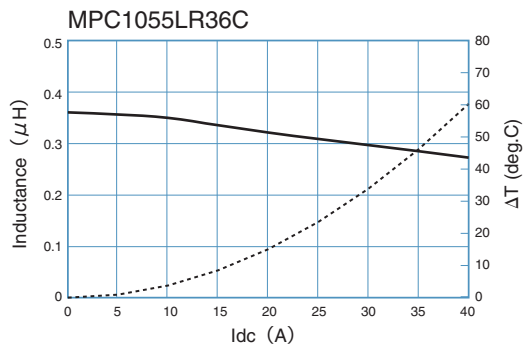
SMD TYPE

DC-Superposed Characteristics



SMD TYPE

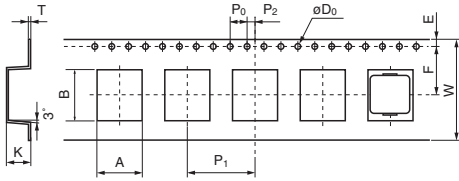
Temperature rise



SMD TYPE

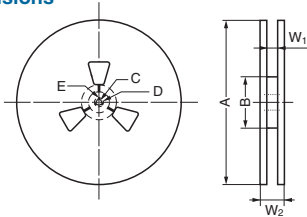
MPC0740, 0750 Series (1000pcs./reel)

Dimensions of indented square hole plastic tape



[mm]										
A	B	W	F	E	P ₁	P ₂	P ₀	øD ₀	T	K
±0.1	±0.1	±0.2	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05	±0.1
7.0	8.0	16.0	7.5	1.75	12.0	2.0	4.0	1.55	0.4	5.3

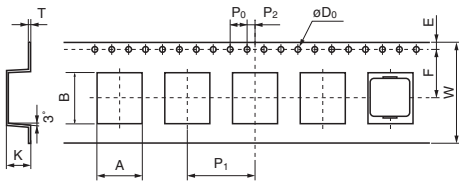
Reel dimensions



[mm]							
A	B	C	D	E	r	W ₁	W ₂
±2.0	±1.0	±0.2	±0.8	±0.5		±1.0	±1.0
ø330	ø80	ø13.0	ø21.0	2.0	R1.0	17.5	21.5

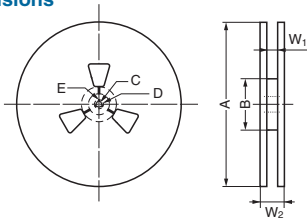
MPC1040 Series (500pcs./reel)

Dimensions of indented square hole plastic tape



[mm]										
A	B	W	F	E	P ₁	P ₂	P ₀	øD ₀	T	K
±0.1	±0.1	±0.3	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05	±0.1
10.5	12.1	24.0	11.5	1.75	16.0	2.0	4.0	1.55	0.4	5.2

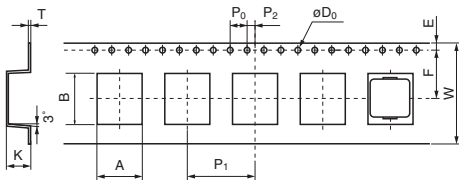
Reel dimensions



[mm]							
A	B	C	D	E	r	W ₁	W ₂
±5.0	±5.0	±0.5	±1.0	±0.5		±2.0	±3.0
ø330	ø80	ø13.5	ø21.0	2.0	R1.0	24.4	30.4

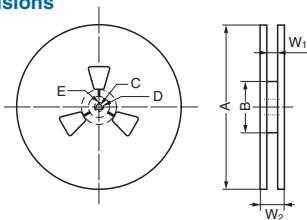
MPC1055 Series (500pcs./reel)

Dimensions of indented square hole plastic tape



[mm]										
A	B	W	F	E	P ₁	P ₂	P ₀	øD ₀	T	K
±0.1	±0.1	±0.2	±0.1	±0.1	±0.1	±0.1	±0.1	±0.05	±0.05	±0.1
10.5	12.1	24.0	11.5	1.75	24.0	2.0	4.0	1.55	0.4	6.0

Reel dimensions

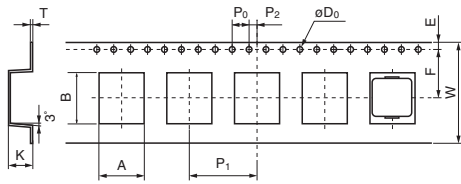


[mm]							
A	B	C	D	E	r	W ₁	W ₂
±2.0	±1.0	±0.5	±0.8	±0.5		±2.0	±3.0
ø380	ø100	ø13.0	ø21.0	2.0	R1.0	24.4	30.4

SMD TYPE

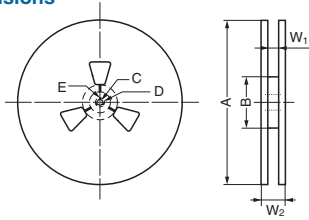
MPC1250 Series (500pcs./reel)

Dimensions of indented square hole plastic tape



											[mm]
A	B	W	F	E	P ₁	P ₂	P ₀	øD ₀	T	K	
±0.2	±0.2	±0.4	±0.2	±0.2	±0.2	±0.2	±0.2	±0.02	±0.1	±0.2	
13.1	14.6	24.0	11.5	1.75	24.0	2.0	4.0	1.5	0.4	5.3	

Reel dimensions



								[mm]
A	B	C	D	E	r	W ₁	W ₂	
±2.0	±5.0	±0.5	±0.8	±0.5		±2.0	±3.0	
ø380	ø100	ø13.0	ø21.0	2.0	R1.0	25.5	28.5	