



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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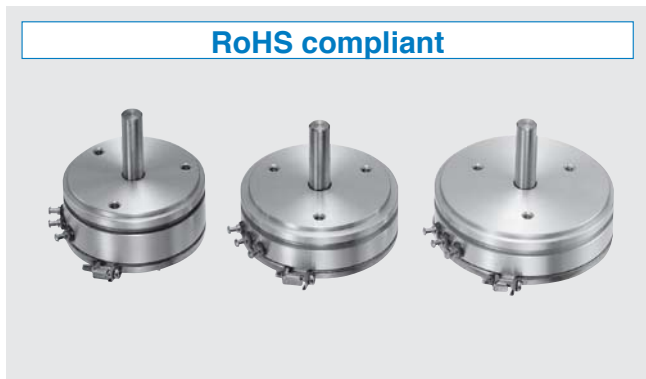
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



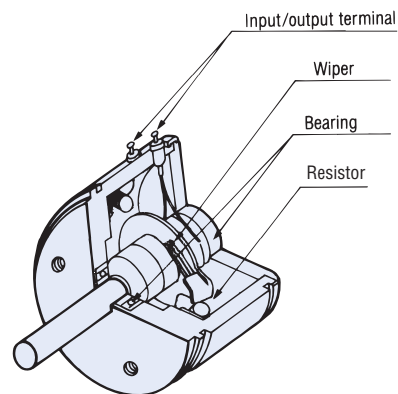
# WIREWOUND SINGLE TURN TYPE

# J series

## RoHS compliant



## Basic construction Wirewound single turn type



## FEATURES

- High linearity through precision wire winding
- Long life
- High following characteristics
- Low noise
- RoHS compliant

## PART NUMBER DESIGNATION

	J 50 S		5 0 0	
Series name				Nominal resistance value (Ω)
J40S J45S J50S				500, 1 k, 2 k, 5 k, 10 k, 20 k, 50 k

## LIST OF PART NUMBERS

Size	Item	Nominal resistance value	Part number
φ 40 mm		500 Ω	J40S 500
		1 kΩ	J40S 1 k
		2 kΩ	J40S 2 k
		5 kΩ	J40S 5 k
		10 kΩ	J40S 10 k
φ 44.45 mm		500 Ω	J45S 500
		1 kΩ	J45S 1 k
		2 kΩ	J45S 2 k
		5 kΩ	J45S 5 k
		10 kΩ	J45S 10 k
		20 kΩ	J45S 20 k
φ 50.8 mm		50 kΩ	J45S 50 k
		500 Ω	J50S 500
		1 kΩ	J50S 1 k
		2 kΩ	J50S 2 k
		5 kΩ	J50S 5 k
		10 kΩ	J50S 10 k
	20 kΩ	J50S 20 k	
	50 kΩ	J50S 50 k	

※ Verify the above part numbers when placing orders.

## STANDARD SPECIFICATIONS

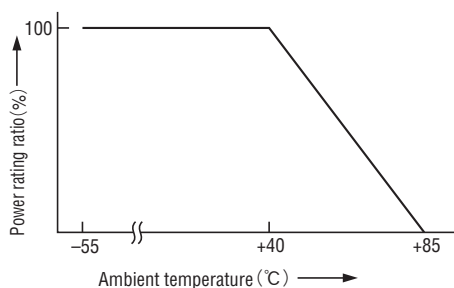
Item	Part number	J40S	J45S	J50S
Resistance tolerance	%	± 5		
Effective electrical angle		350° ± 1.5°	353° ± 1.5°	355° ± 1.5°
Mechanical angle		360° continuous		
Power rating (at 40 °C)	W	1	1.3	1.5
Dielectric strength	Vrms	1000 1 min		
Insulation resistance	MΩ minimum	1000 (at DC500 V)		
Rotational torque	mN·m {gf·cm} maximum	0.59 {6}		0.69 {7}
Peak noise	Ω maximum	10 (4 min <sup>-1</sup> )		
Temp. coefficient of resistance	ppm/°C	± 50		
Operating temp. range	°C	-55 ~ 85		
Maximum rotational speed	min <sup>-1</sup>	100	200	
Net weight	g	Approx. 58	Approx. 60	Approx. 73
Connecting accuracy		± 1° Based on No. 1 terminal		
Protection grade		IP40		

# J40S/J45S/J50S POTENTIOMETERS

## RESISTANCE VALUES, RESOLUTION, INDEPENDENT LINEARITY, ROTATIONAL LIFE

Nominal resistance value ( $\Omega$ )	Resolution (%)			Independent linearity (%)			Rotational life (million cycles)		
	J40S	J45S	J50S	J40S	J45S	J50S	J40S	J45S	J50S
500	0.13	0.12	0.1	$\pm 0.15$	$\pm 0.1$	$\pm 0.1$	5	10	10
1 k	0.1	0.1	0.08						
2 k	0.08	0.07	0.06						
5 k	0.07	0.08	0.07	—	$\pm 0.15$	$\pm 0.15$	1	1	1
10 k		0.07	0.05						
20 k	—	0.05	0.05	—	$\pm 0.15$	$\pm 0.15$	1	1	1
50 k	—	0.04	0.03						

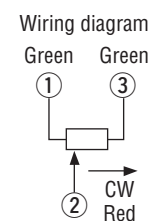
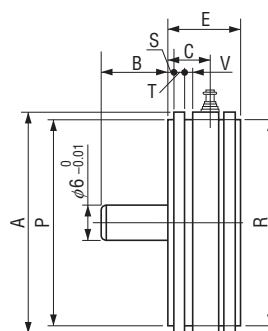
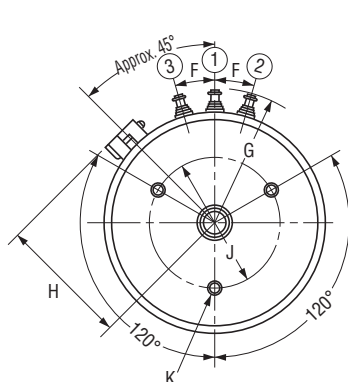
## RATED POWER DERATING CURVE



## OUTLINE DIMENSIONS

(Unit : mm)

- J40S
- J45S
- J50S



## List of outline dimensions

Part number	Marks	A	B	C	E	F	G	H	J	K	P	R	S	T	V		
J40S	$\varnothing 40$	20	13.3	20	16°	R25	25	$\varnothing 30$	M 3 (P = 0.5) D = 3.0 minimum	$\varnothing 37_{-0.03}^0$	$\varnothing 37$	1.57	2.36	1.86			
J45S	$\varnothing 44.45$					10.5	16.6			14°	R26.8				26.7	$\varnothing 39.68_{-0.025}^0$	$\varnothing 40.6$
J50S	$\varnothing 50.8$					10.5	16.6			12°	R30				30	$\varnothing 47.62_{-0.025}^0$	$\varnothing 47.6$