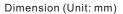


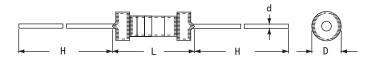


### KLS6-Carbon Film Fixed Resistors Series

#### 1.Features

- Temperature Range -55 °C ~ +155 °C
- ± 5% tolerance
- High quality performance at economical prices
- Compatible with automatic insertion equipment
- Flame retardant type available
- Weldable type with copper plated lead wire available
- Values below  $1\Omega$  or above  $10M\Omega$  are available by special request, please ask for details





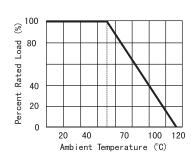


KL5 electronic

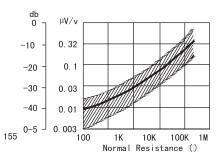
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	pow er		Dimen	sion(mm)		Max.	Max. Insulation		Resistance			
Code	(70° C)	D Max.	L Max.	d +0.02 -0.05	H±3	w orking voltage	Permission voltage	dielectric strength	range			
Standard Size												
1/8W	1/8W	1.85	3.5	0.5	28	200V	400V	400V	1Ω∼10ΜΩ			
1/4W	1/4W	2.5	6.8	0.6	28	250V	500V	500V	1Ω~10MΩ			
1/2W	1/2W	3.5	10	0.6	28	350V	700V	700V	1Ω~10MΩ			
1W	1W	5	12	0.7	28	500V	1000V	1000V	1Ω~10MΩ			
2W	2W	5.5	16	0.8	28	500V	1000V	1000V	1Ω~10MΩ			
Small Size												
1/4WS	1/4W	1.85	3.5	0.5	28	200V	400V	400V	$1\Omega{\sim}10M\Omega$			
1/2WS	1/2W	2.5	6.8	0.6	28	250V	500V	500V	1Ω~10MΩ			
1WS	1W	3.5	10	0.6	28	500V	1000V	1000V	1Ω~10MΩ			
2WS	2W	5	12	0.7	28	500V	1000V	1000V	1Ω~10MΩ			
3WS	3W	5.5	16	0.8	28	500V	1000V	1000V	$1\Omega{\sim}10M\Omega$			

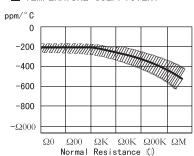
### ■ DERATING CURVE



### ■ CURRENT NOISE



### ■ TEMPERATURE COEFFICIENT



# ORDER INFORMATION





## Carbon Film Fixed Resistors Series

### KLS6-Carbon Film Fixed Resistors Series

#### **■ CHARACTERISTICS**

DC. Resistance	Must be within the tolerance.	e specified		5.1 The limit of error of measuring apparatus shall not exceed allowable range or 5% of resistance tolerance			
Temperature coefficient	Resist. Range < 10 Ω 11Ω ~ 99K 100K ~ 1M 1.1M ~ 10M	T.C.R  0 ~ ±: 0 ~ -4 0 ~ -7 0 ~ -1	450 700	5.2 Natural resistance change per temp. degree centigrade.  R2-R1  x106 (PPM/°C)  R1(t2-t1)  R1: Resistance value at room temperature (t1)  R2: Resistance value at room temp.plus 100°C (t2)			
Short time overload	Resistance chan ± (1 % + 0.05Ω) evidence of med	Max. with no	)	5.5 Permanent resistance change after the application of a potential of 2.5 times RCWV for 5 seconds.			
Insulation Resistance	Insulation resista 10,000 MΩ Min	ince is		5.6 Resistors shall be clamped in the trough of a 90° metallic V-block and shall be tested at DC potential respectively specified in the above list for 60 +10/ -0 seconds.			
Dielectric withstanding voltage	No evidence of fi mechanical dam- insulation break	age,arcing or		5.7 Resistors shall be clamped in the trough of a 90° metallic V-block and shall be tested at AC potential respectively specified in the table 1 for 60 + 10/-0 seconds.			
Terminal strength	No evidence of n damage.	nechanical	6.1 Direct load  Resistance to a 2.5 kgs direct load for 10 secs. in the direction of the longitudinal axis of the terminal leads.  Twist test:  Terminal leads shall be bent through 90° at a point of about 6mm from the body of the resistor and shall be rotated through 360° about the original axis of the bent terminal in alternating direction for a total of 3 rotations.				
Resistance to soldering heat	Resistance chan ± (1% + 0.05Ω) I evidence of med	Max. with no	Э.	6.4 Permanent resistance change when leads immersed to 3.2 to 4.8 mm from the body in 350 °C $\pm$ 10°C solder for 3 $\pm$ 0.5 seconds			
Solderability 95 % coverage Min.			6.5 The area covered with a new , smooth clean , shiny and continuous surface free from concentrated pinholes.  Test temp. of solder : 245°C ± 3°C  Dwell time in solder : 2 ~ 3 seconds				
Temperature Resistance change rate is cycling $\pm (1\% + 0.05\Omega)$ Max. with no evidence of mechanical damage.			7.4 Resistance chan 5 cycles for duty sho Step 1 2 3 4		Time 30 mins 10~15 mins 30 mins 10~15 mins		
Load life in humidity		ΔR/R ± 3 % ± 5 %	7.9 Resistance change after 1,000 hours operating at RCWV with duty cycle of (1.5 hours "on", 0.5 hour "off") in a humidity test chamber controlled at 40°C ± 2°C and 90 to 95 % relative humidity				
Load life		value < than 56KΩ > 56KΩ	ΔR/R ± 2 % ± 3 %	7.10 Permanent resistance change after 1,000 hours operating at RCWV with duty cycle of (1.5 hours "on", 0.5 hour "off") at 70°C ± 2°C ambient			

# ORDER INFORMATION

