

# Resistor

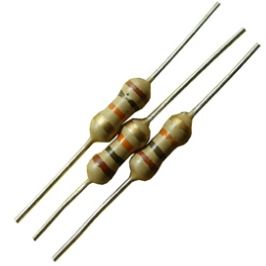
## ER1 - Carbon Film Fixed Resistor

ELECSOUND®

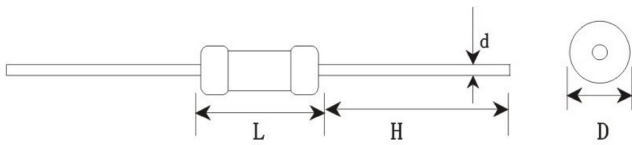
Stable performance, extensive resistance, small size, high operating temperature and high ultimate voltage  
 Highly adaptive pulse load, good high frequency performance  
 Operating ambient temperature : -55°C to +125°C  
 RoHS Compliant

### Electrical Characteristics

Item	Performance Requirement	Test Methods
Temperature Coefficient	-1000PPM/°C ≤ α ≤ +350PPM/°C	JIS5202-5.2
Short time Overload	$\Delta R \leq \pm(1\%R_0 + 0.05R)$	JIS5202-5.5
Pulse Overload	$\Delta R \leq \pm(2\%R_0 + 0.05R)$	JIS5202-5.8
Resistance to Soldering Heat	$\Delta R \leq \pm(1\%R_0 + 0.05R)$	JIS5202-6.4
Solderability	The area of soldering is over 95%	JIS5202-6.5
Temperature Cycling	$\Delta R \leq \pm(1\%R_0 + 0.05R)$	JIS5202-7.4
Load Life in Humidity	$\Delta R \leq \pm(5\%R_0 + 0.1R)$	JIS5202-7.9
Load Life	$\Delta R \leq \pm(5\%R_0 + 0.1R)$	JIS5202-7.10



### Diameter And Size(Unit: mm)



Part No.	Dimensions (mm)				Resistance Range (OHM)		Tolerance
	L±1.0	D±0.5	H±2	d±0.05	Min. Value	Max. Value	
ER1-1/6W(1/4Ws)	3.5	1.7	28.0	0.45	1R	22M	±5%
ER1-1/4W(1/2Ws)	6.0	2.3	28.0	0.54	1R	22M	±5%
ER1-1/2W(1Ws)	9.8	3.2	26.0	0.58	2R2	10M	±5%
ER1-1W(2Ws)	11.5	4.5	26.0	0.78	2R2	10M	±5%
ER1-2W(3Ws)	15.0	5.0	26.0	0.78	2R2	10M	±5%
ER1-3W	17.0	6.0	30.0	0.78	2R2	10M	±5%
ER1-5W	25.0	8.0	35.0	0.78	2R2	10M	±5%

Note: "s" means small size type,

Special Resistance available

### Performance Parameters

Parameters Power Rated	Max. Working Voltage	Max. Overload Voltage	Max. Pulse Overload Voltage	Withstand Voltage
1/6W	200V	400V	500V	300V
1/4Ws	200V	400V	500V	300V
1/4W	250V	500V	750V	500V
1/2Ws	250V	500V	750V	500V
1/2W	350V	700V	1000V	700V
1Ws	350V	700V	1000V	700V
1W	500V	1000V	1000V	1000V
2Ws	500V	1000V	1000V	1000V
2W	500V	1000V	1000V	1000V
3Ws	500V	1000V	1000V	1000V

### Power Rated Derating Curve

Rated Power Derating Curve

