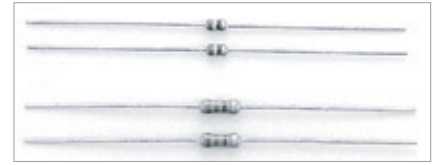




# Miniature Paint Insulated Carbon Film Fixed Resistors

## Feature

Model No. "NAT" is miniaturized carbon film resistor .  
 Automatic insertion with 5 mm pitch for high density assembly is available.

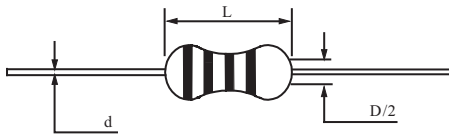


## Power Rating

Model No.	Power Rating	Max. Working Voltage	Max. Overload Voltage	Max. Pulse Voltage	Resistance Range	Tolerance	Rating Ambient Temp.	Operating Temp. Range
	[W]	[V]	[V]	[V]	[Ω]	[%]	[°C]	[°C]
NAT 1/4	0.25	250	500	500	2.2 ~ 100k	±5.0	+70	-55 ~ +155
					10 ~ 100k	±2.0		
NAT 1/2	0.50	300	600	600	1.0 ~ 100k	±5.0		
					10 ~ 100k	±2.0		

★Rated Voltage:  $\sqrt{P \cdot R}$  (P=Rated power (W), R=Nominal resistance(Ω)) Rated Voltage shall be either the calculated rated voltage or Max. Working Voltage whichever less.

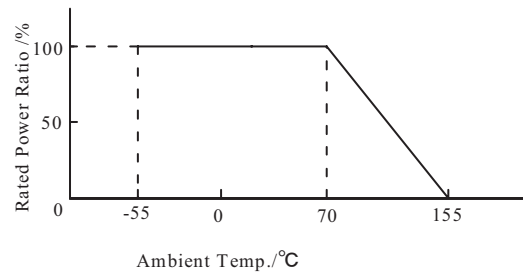
## Dimensions



★Body color : Brown

Model No.	Dimensions(mm)		
	L	D	d
NAT 1/4	3.4max	1.8 ± 0.2	0.45 ± 0.05
NAT 1/2	6.3 ± 0.5	2.4 ± 0.2	0.6 ± 0.05

## Derating Curve



## Model Designation

NAT   1/4   102   J   TU  
 ①   ②   ③   ④   ⑤

	Symbol	Meaning
①	Model No.	NAT MINIATURE PAINT INSULATED FIXED CARBON FILM RESISTORS
②	Power Rating	1/4      0.25W
		1/2      0.5W
③	Resistance	102      3 digit E-24 Series
		For detail description about resistance marking, please refer to "General Specifications."
④	Tolerance	G      ±2.0%
		J      ±5.0%
⑤	Forming, Packaging	TU,TP      Axial Taping
		RP      Radial Taping
For detail description about forming and taping specification, please refer to Taping Specification page in "General Specifications."		