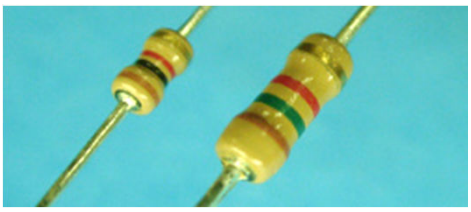
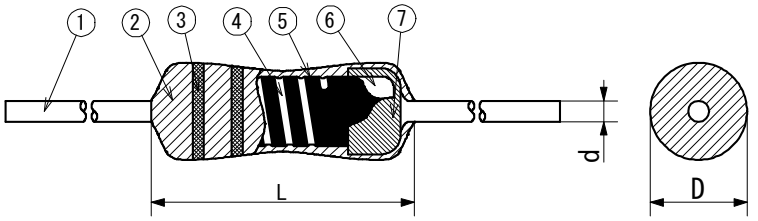
MINIATURE PAINT INSULATED CARBON FILM FIXED RESISTORS

Model No. NAT



■Constructions and Dimensions



①	lead wire	④	herical cutting groove	⑦	cap
②	insulation coat	⑤	conductive film		
③	color code	⑥	ceramic base		

Type	Dimensions(mm)		
	L	D	d
NAT1/4	3.4 max.	1.8±0.2	0.45±0.05
NAT1/2	6.0±0.5	2.2±0.3	0.55±0.05

■Feature

- "NAT" is the miniaturized carbon film resistor.
- Automatical insertion with 5 mm picth for high density assembly is available. (1/4W)
- Body color : Brown

■Type Designation

Ex)NAT1/4 102 JTU

NAT	1/4	102	J	TU
Type	Power Rating	Resistance	Tolerance	Forming, Packaging
MINIATURE PAINT INSULATED CARBON FILM FIXED RESISTORS	1/4:0.25W 1/2:0.5W	102:1kΩ E-24 series	G : ±2.0% J : ±5.0%	TU:52mm Axial Taping TP:26mm Axial Taping RP:Radial Taping

※Please refer to General Specifications.

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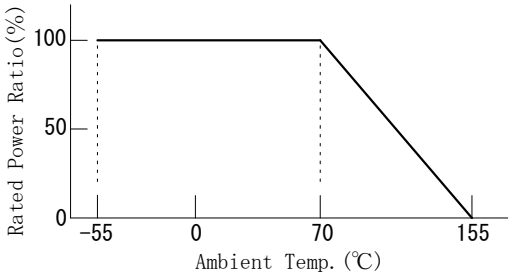
■Power Rating

Type	Power Rating	Rated Voltage	Dielectric withstanding Voltage	Resistance Range [Ω]		T.C.R. [ppm/℃]			Rated Ambient Temp.	Operating Temp.Range
	[W]	[V]	[V]	G	J	～1kΩ	1.1k～47kΩ	51k～100kΩ	[℃]	[℃]
NAT1/4	0.25	$\sqrt{P \cdot R}$	300	10～100k	2.2～100k	±350	-600 ～-150	-1000 ～-150	+70	-55～ +155
NAT1/2	0.5	$\sqrt{P \cdot R}$	400	10～100k	1.0～100k					

※P=Rated power (W), R=Nominal resistance (Ω)

■Derating Curve



■Performance

Items	Characteristics	Test method
Short-time over load	resistance change within ±1.0%	JIS C 5201-1 4.13 Rated voltage×2.5 5s
Resistance to soldering heat	resistance change within ±0.5%	JIS C 5201-1 4.18 260℃ 10s
Damp heat (steady state)	resistance change within ±5.0%	JIS C 5201-1 4.24 40℃、95%RH、1,000h 1.5hON, 0.5hOFF cycle
Endurance (rated load)	resistance change within ±5.0%	JIS C 5201-1 4.25.1 70℃、1,000h 1.5hON, 0.5hOFF cycle