

Thick Film Chip Attenuators

NFA Series

FEATURES

- HIGH FREQUENCY (UP TO 3GHz) PERFORMANCE
- SMALL 0404 SPACE SAVING SMT PACKAGE
- LOWER PLACEMENT COST (SINGLE COMPONENT RATHER THAN THREE DISCRETE RESISTORS)
- BOTH FLOW AND REFLOW SOLDERING APPLICABLE



SPECIFICATIONS

Part Number	Power Rating (Package)	Temperature Range	Impedance Characteristic	Voltage Standing Wave Ratio	Frequency Range	Attenuation Value	Attenuation Tolerance
NFA0404E0R0TR	0.1W	-40°C ~ +125°C	50 Ω	1.1 max.	DC ~ 3.0GHz	0.0dB	± 0.1dB
NFA0404E0R5TR				0.5dB		± 0.3dB	
NFA0404E1R0TR				1.0dB			
NFA0404E1R5TR				1.5dB			
NFA0404E2R0TR				2.0dB			
NFA0404E3R0TR				3.0dB			
NFA0404E4R0TR				4.0dB		± 0.4dB	
NFA0404E5R0TR				5.0dB			
NFA0404E6R0TR				6.0dB			
NFA0404E7R0TR				7.0dB			
NFA0404E8R0TR				8.0dB			
NFA0404E9R0TR				9.0dB		± 0.8dB	
NFA0404E100TR				10dB			
NFA0404E110TR				11dB			
NFA0404E120TR				12dB		± 1.0dB	
NFA0404E130TR				13dB			
NFA0404E140TR				14dB		± 1.5dB	
NFA0404E150TR				15dB			
NFA0404E160TR				16dB		±2.0dB	
NFA0404E170TR				17dB			
NFA0404E180TR				18dB			
NFA0404E190TR				19dB			

Description	Performance		
	0.5 ~ 2dB	3dB ~ 5dB	6dB ~ 20dB
Insulation Resistance	100Meg ohms minimum		
Resistance to Solder Heat (260°C for 5 sec.)	± 0.1dB	± 0.2dB	± 0.3dB
Temperature Cycling (5 cycles -55°C ~ +125°C)			
Endurance at 85°C (after 1000Hrs)			

PART NUMBERING SYSTEM

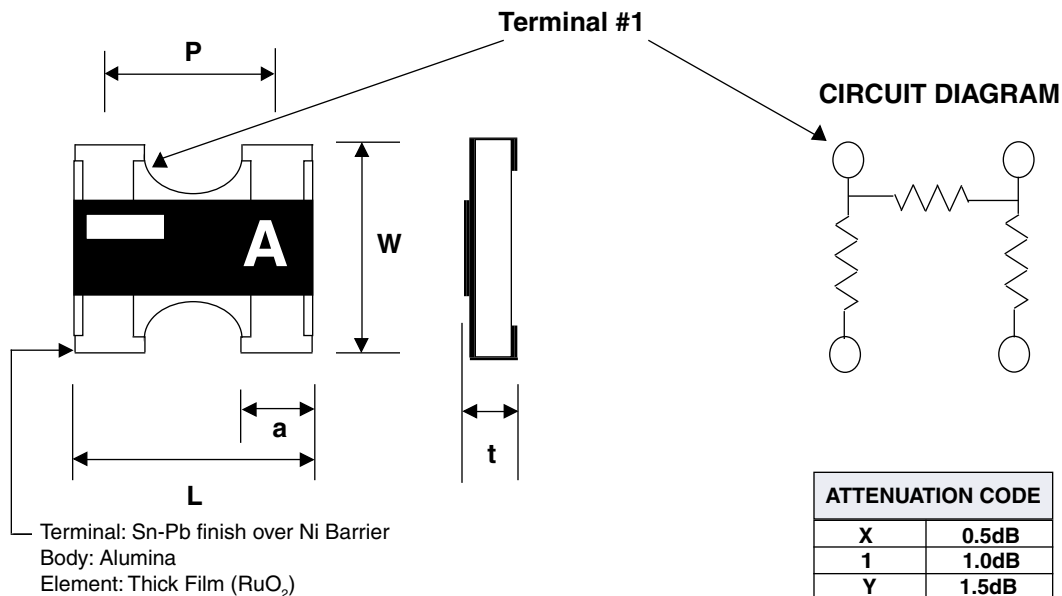
NFA 0404 E 3R0 TR F

NFA: Series
 0404: Case Size
 E: Impedance Characteristic
 3R0: Attenuation
 TR: Tape & Reel
 F: Lead-Free (optional)



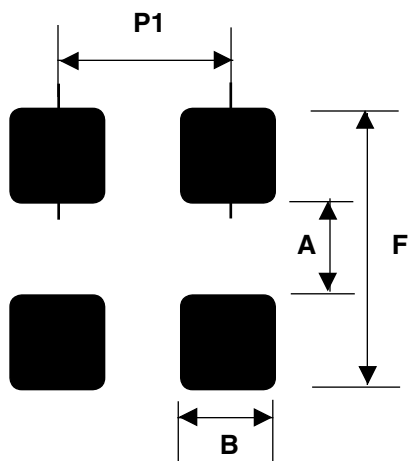
DIMENSIONS (mm)

L	W	P	t	a
1.0 ± 0.10	1.0 ± 0.10	0.65	0.35 ± 0.05	0.33 ± 0.05



LAND PATTERN DIMENSIONS (mm)

A	B	F	P1
0.5	0.45	1.5	0.65



ATTENUATION CODE	
X	0.5dB
1	1.0dB
Y	1.5dB
2	2dB
3	3dB
4	4dB
5	5dB
6	6dB
7	7dB
8	8dB
A	10dB
B	11dB
C	12dB
D	13dB
E	14dB
F	15dB
G	16dB
H	17dB
J	18dB
K	19dB
L	20dB