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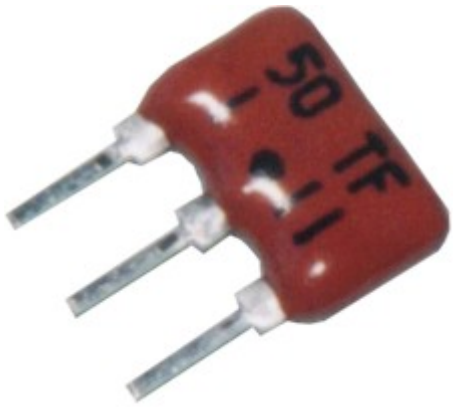
Resistors And
Resistive Applications

TFA(TH)Through Hole
RF Power Attenuators



Introduction

These are RF attenuators with characteristic impedances of: 50, 75, 300 and 600 ohms. These are designed for through hole and SIP, DIP applications. Long life and temperature stability is made possible with NiCr thin film and alumina substrates. Applications include: Isolation circuits, data transmission, RF applications and measurements.

Model	Rated Power [W]	Impedance [Ω]	Attenuation[dB] (See note)	Frequency [Hz]
TFA-50TF	0.25W	50Ω	1,2,3,4,5,6,7,8,9,10,20,30dB	100MHz DC
TFA-75TF	0.25W	75Ω	1,2,3,4,5,6,7,8,9,10,20,30dB	100MHz DC
TFA-300TF	0.25W	300Ω	1,2,3,4,5,6,7,8,9,10,20,30dB	100MHz DC
TFA-600TF	0.25W	600Ω	1,2,3,4,5,6,7,8,9,10,20,30dB	100MHz DC
TFA-50T	0.50W	50Ω	1,2,3,4,5,6,7,8,9,10,20,30,40 dB	100MHz DC
TFA-75T	0.50W	75Ω	1,2,3,4,5,6,7,8,9,10,20,30,40 dB	100MHz DC
TFA-300T	0.50W	300Ω	1,2,3,4,5,6,7,8,9,10,20,30,40 dB	100MHz DC
TFA-600T	0.50W	600Ω	1,2,3,4,5,6,7,8,9,10,20,30,40 dB	100MHz DC
TFA-50TS	0.50W	50Ω	1,2,3,4,5,6,7,8,9,10,20,30,40 dB	100MHz DC
TFA-300B	0.50W	75Ω	1,2,3,4,5,6,7,8,9,10,20,30,40 dB	100MHz DC
TFA-600B	0.50W	300Ω	1,2,3,4,5,6,7,8,9,10,20,30,40 dB	100MHz DC
TFA-85FD	0.50W	50Ω	1,2,3,4,5,6,7,8,9,10,20,30,40 dB	200MHz DC
TFA-85FC	0.50W	75Ω	1,2,3,4,5,6,7,8,9,10,20,30,40 dB	200MHz DC

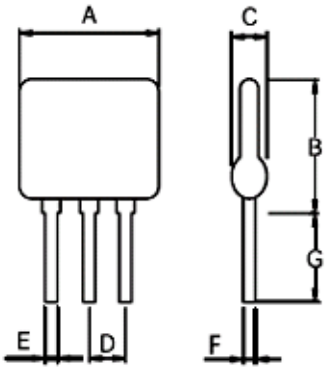
Characteristics

Tolerance of Impedance	[±1%(F)]	Input DC resistance in terminating output port with precision resistor.
Tolerance of Attenuation	[±1%]	Output VDC in terminating with precision resistor when 1VDC connect to input.
TCR of Impedance	[±50ppm/C]	TC of input DC resistance in terminating output port with precision resistor
TCR of Attenuation	[±50ppm/C]	Output VDC in terminating with precision resistor when 1VDC connect to input.
Soldering Heat	[±1%]	350C, 3 seconds, dipping
Solderability	[75%Covered]	350C, 3 seconds, dipping
Humidity	[±1%]	40C, 95%RH, DC0.1W, 1000H
Load Life	[±1%]	70C, 90minON, 30minOFF, 100H

Ordering Procedure

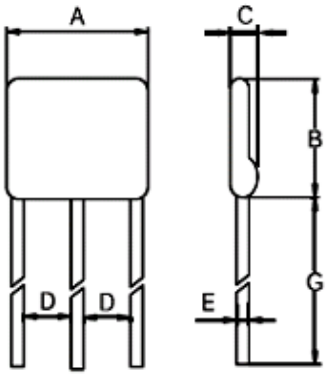
Ordering Example	Attenuation	Tolerance
TFA-50T6dBF	-15dB	F(1%)
TFA-75T12dBF	-20dB	F(1%)
TFA-600T20dBF	-20dB	F(1%)

RFA-50TF, RFA-75TF, RFA-300TF, RFA-600TF



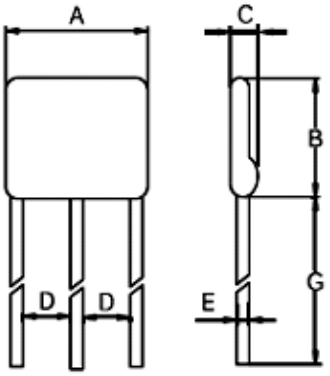
Symbol	mm
A	8.0max
B	7.0
C	3.0max
D	2.54
E	0.6
F	0.5
G	3.3

RFA-50T, RFA-75T, RFA-300T, RFA-600T



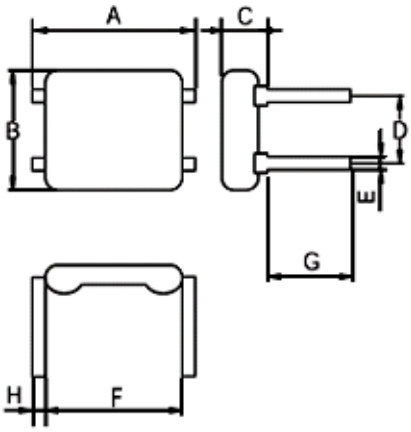
Symbol	mm
A	12.5max
B	11.5max
C	3.0max
D	5.0
E	ϕ0.5
F	-
G	10

RFA-50T, RFA-75T, RFA-300T, RFA-600T



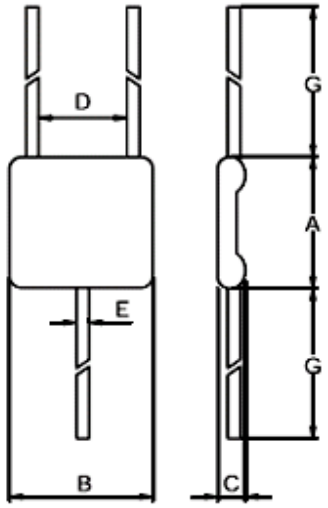
Symbol	mm
A	12.5max
B	11.5max
C	3.0max
D	5.0
E	ϕ0.5
F	-
G	10

RFA-85FD, RFA-85FC



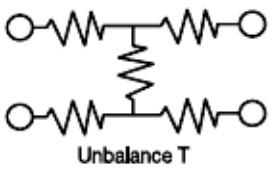
Symbol	mm
A	9.0max
B	6.0max
C	3.5max
D	2.54
E	0.6
F	9.0
G	3.3
H	0.5

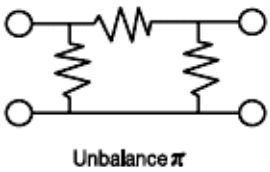
RFA-50TS, RFA-75TS, RFA-300TS, RFA-600TS

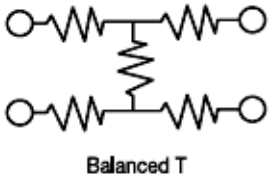


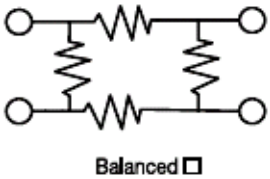
Symbol	mm
A	12.5max
B	11.5max
C	3.0max
D	10.0
E	ϕ0.5
F	-
G	10.

Equivalent Circuit of attenuator


Unbalance T


Unbalance π


Balanced T


Balanced □

