

表面実装電力減衰器
 SURFACE MOUNT
 RF POWER ATTENUATORS
 RFA100, RFA150



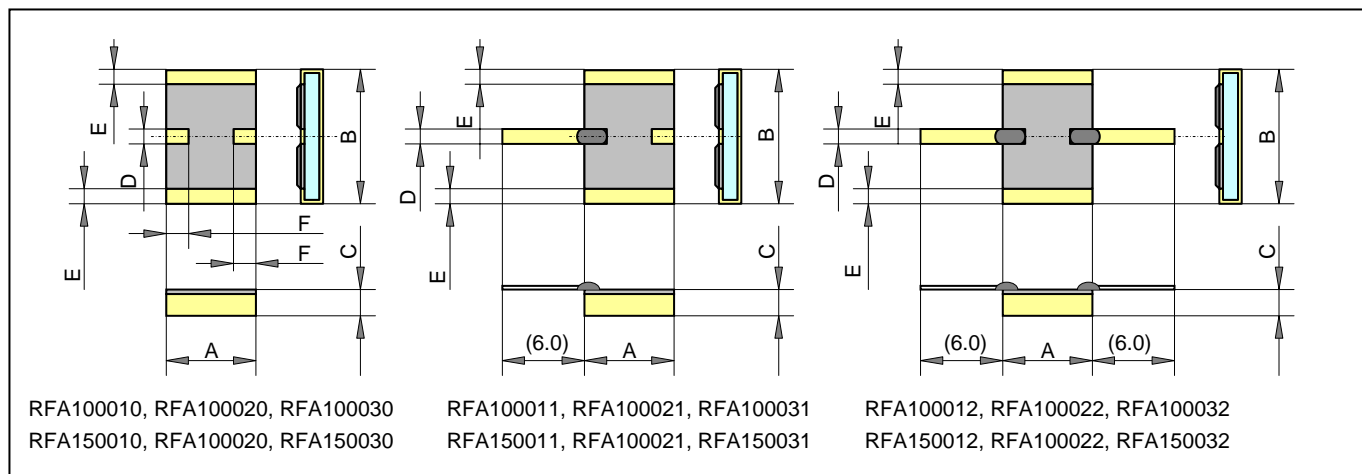
特長用途

RFA100, RFA150は、定格電力100Wと150W、表面実装電力減衰器、DC-3GHzにおいて、特性インピーダンス50Ω、減衰量20dBと30dBの精密減衰器です。
 RFA100 030, RFA150 030は、鉛フリー構造、ピームリード付のRFA100 031, RFA150 031はRoHS適合品。
 いずれの製品も、チップの裏面を適切な放熱能力の金属ヒートシンクにはんだ付して使用します。
 アイソレータ終端器、電力増幅器のパワー検出、高速LSI試験装置の信号制御、理化学機器、分析装置、医用電子機器のパワー減衰器として、
 20dBと30dB以外の減衰量の製品については、当社にお問い合わせください。

Features and Applications

RFA100 and RFA150, 100W and 150W, surface mount small size attenuators of 20 dB and 30 dB attenuation, 50ohm characteristic impedance for DC to 3GHz.
 RFA100 030 and RFA150 030 are Pb free and no BeO configuration.
 RFA100 031 and RFA150 031 have Cu beam leads, RoHS and no BeO configuration.
 Long life and temperature stability of thin film technology realize better performance at a temperature range from -55C to +155C.
 Applications include power detect circuit of isolator, gain control circuits, isolation circuits of power boost amplifiers at GHz, loss compensation of transmission line of data communication systems, detecting signal control of ATE-LSI test system-circuit board functional test systems, industrial measurement electronics, medical scientific electronics and many communication systems.

寸法 Dimensions (mm)



P/N	A	B	C	D	E	F	old p/n
RFA100 010	5.84+/-0.15	8.89+/-0.15	1.1 max.	1.0+/-0.3	0.3+/-0.1	(1.5)	RFAS100DD
RFA100 020	5.84+/-0.25	8.89+/-0.25	1.1 max.	1.0+/-0.3	0.3+/-0.1	(1.05)	RFAS100A
RFA100 030	5.72+/-0.25	8.90+/-0.25	1.1 max.	1.1+/-0.3	0.3+/-0.1	(1.1)	RFAS100-1
RFA150 010	7.62+/-0.15	11.43+/-0.15	1.1 max.	1.0+/-0.3	0.3+/-0.1	(1.5)	RFAS150DD
RFA150 020	7.62+/-0.25	11.43+/-0.25	1.1 max.	1.0+/-0.3	0.3+/-0.1	(1.05)	RFAS150A
RFA150 030	6.35+/-0.25	9.52+/-0.25	1.1 max.	1.1+/-0.3	0.3+/-0.1	(1.1)	RFAS150-1
RFA100 031	5.72+/-0.25	8.90+/-0.25	1.1 max.	1.0+/-0.3	0.3+/-0.1	---	RFAS100-1
RFA150 031	6.35+/-0.25	9.52+/-0.25	1.1 max.	1.0+/-0.3	0.3+/-0.1	---	RFAS150-1

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形名呼称 Ordering Information

Ordering P/N	Type	Outlook	Characteristic Impedance	Attenuation	Rating Power
RFA100 030 20DB Z00	RFA100	030	50ohm	20dB	100W
RFA100 031 30DB Z00	RFA100	031	50ohm	30dB	100W
RFA150 030 30DB Z00	RFA150	030	50ohm	30dB	150W
RFA150 031 20DB Z00	RFA150	031	50ohm	20dB	150W

性能仕様 Specifications and Performances

Model	Schematic	Impedance (*2)	Lead	Attenuations (*1)	Frequency	Rate Power
RFA100 030	Balanced Pi, Chip	50 ohm	Non	20dB, 30dB	DC-3.0GHz	100 W
RFA150 030	Balanced Pi, Chip	50 ohm	Non	20dB, 30dB	DC-3.0GHz	150 W
RFA100 031	Balanced Pi, Chip	50 ohm	Beam Leads	20dB, 30dB	DC-3.0GHz	100 W
RFA150 031	Balanced Pi, Chip	50 ohm	Beam Leads	20dB, 30dB	DC-3.0GHz	150 W

(*1) Attenuation Tolerance at DC are 20, 30dB: +/-0.4dB.

(*2) Impedance tolerance at DC are 50 ohm +/- 2%.

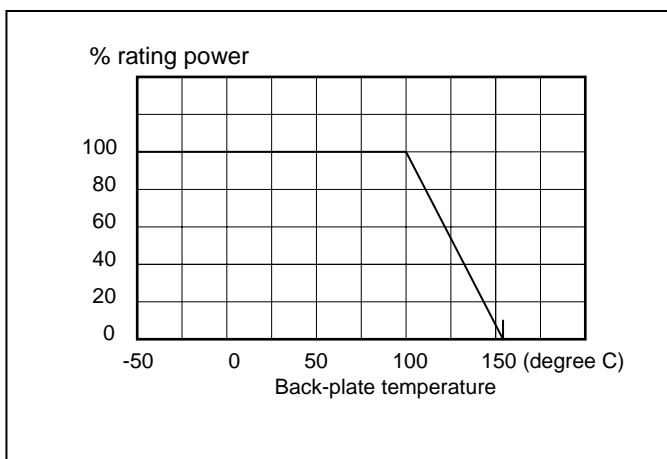
Note 1: Rating wattage of RFA100 and RFA150 assume that the chip attached on proper heat-sink by solder.

Note 2: RFA100 and RFA150 are compliance with RoHS.

仕様 Specifications

Items	Specifications	Conditions
Tolerance of Impedance	+/- 2%	Input DC resistance in terminating output with resistor.
Tolerance of Attenuation	See above note *1.	Output DC volt in terminating out put with resistor when stable 1V DC volt source connect to input.
TC of Impedance	+/- 50ppm/C	TC of input DC resistance in terminating output with resistor.
TC of Attenuation	+/- 50ppm/C	TC of output DC volt in terminating out put with resistor when stable 1V DC volt source connect to input.
Rating Temperature	-55-100 C	
Soldering Heat	+/- 1%	350C, 3 seconds dipping.
Soldering capability	95% covered	
Humidity	+/- 1% impedance	Input DC resistance change Under condition of 40C temp and 90-95%RH, rating power ON-90min, OFF-30min, 1000h
Load Life	+/- 1% impedance	Input DC resistance change. Under condition of 70C temp, rating power ON-90min, OFF-30min, 1000h
Operating Temperature	-55 degC - +155 degC	
Storage Temperature	-55 degC - +155 degC	

負荷軽減 Derating



材料 Material

	Name	Material	Finish
A	Cover	Epoxy	
B	Beam lead	Cu alloy	Au plating
C	Contact	Cu	Tin plating
D	Substrate	AlN	
E	Conductor	Cu	Tin plating

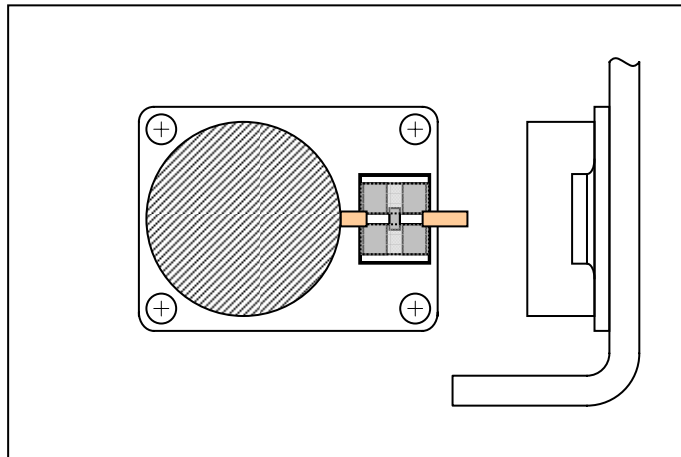
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使用例 Applications

高周波特性 RF Characteristic (S21)



GHz	0.1	1.0	1.5	2.0	2.5	3.0
RFA100030 20DB	20.0	20.0	20.0	20.1	20.2	20.3
RFA100030 30DB	30.0	30.0	29.9	30.0	30.0	30.0
RFA150030 20DB	20.0	20.2	20.2	20.3	20.5	20.6
RFA150030 30DB	30.0	30.4	30.5	30.7	30.6	30.6

高周波特性 RF Characteristics (S11)

