

Features

- Low Profile (maximum height 1.4mm)
- SMD filter consisting of coupled resonators with stepped impedances
- Low losses
- High attenuations at GSM (900, 1800) and UMTS bands
- High attenuation at 2 times center frequency
- $(\text{NdBa})\text{TiO}_3$ ($\epsilon_r = 88$ / $TC_f = 0 \pm 10$ ppm/K) with a coating of copper ($10\mu\text{m}$) and tin ($>5\mu\text{m}$)
- Excellent reflow solderability, no migration effect due to copper/tin metallization

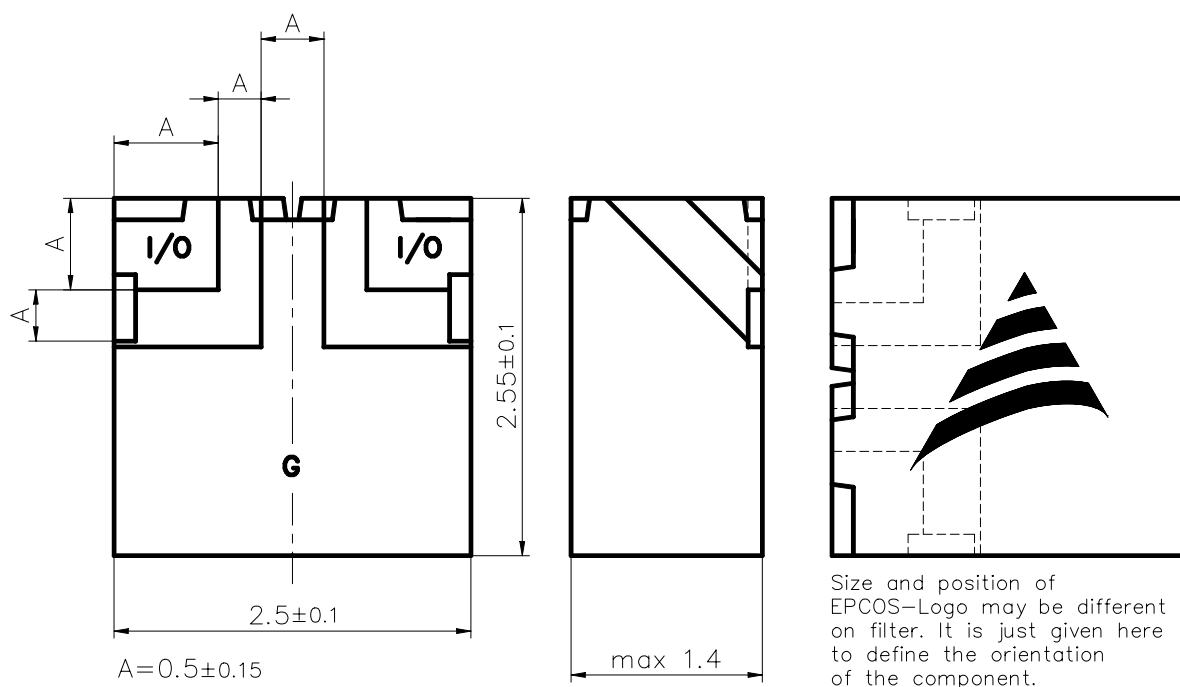
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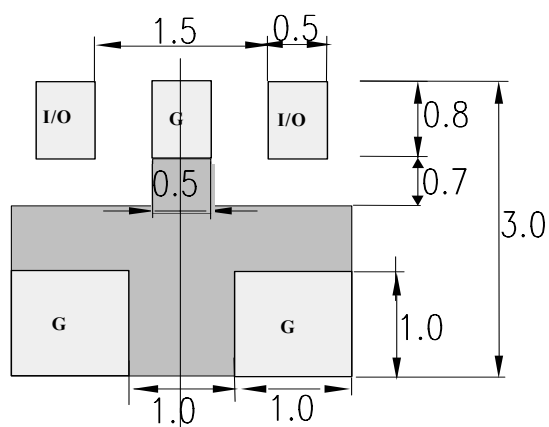
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Preliminary Datasheet

Dimension Limits , Marking



Recommended footprint



Solder Pads:
I/O Pads must be connected to lines with 50 Ω impedance. In the application a termination of 50 Ω must be realized.

Ground, covered with solder resist, connected to lower ground plane by vias with maximum diameter of 0.3mm and max. distance of 1mm

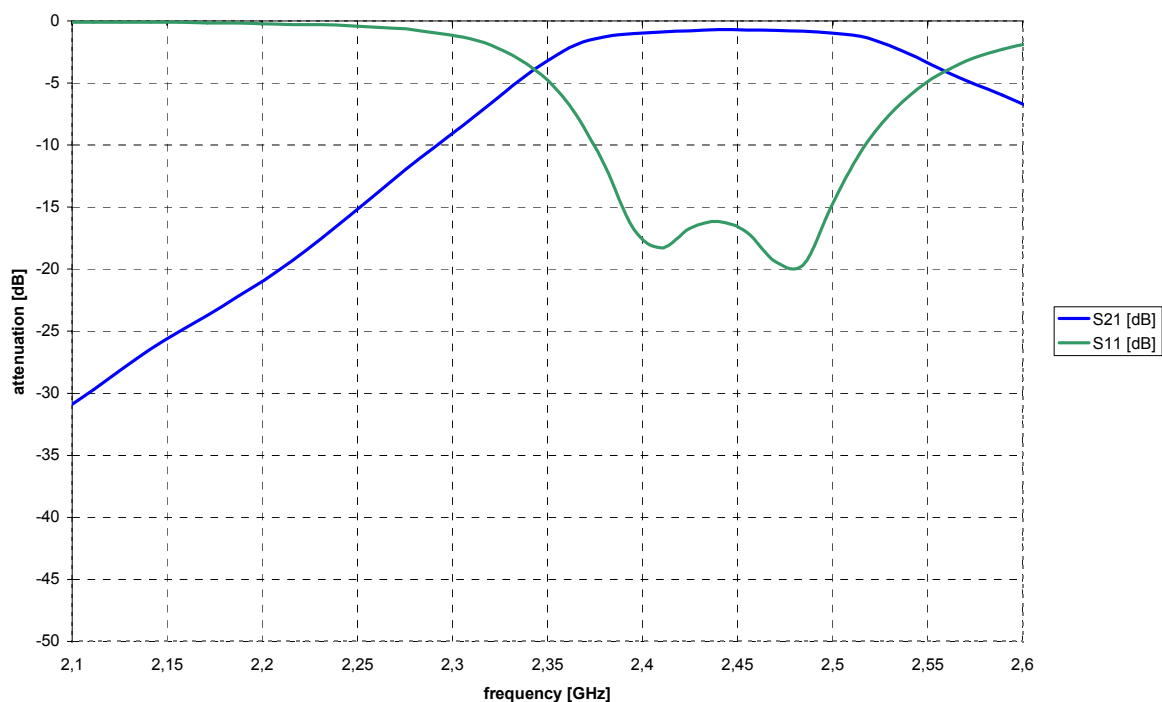
Characteristics

		min.	typ.	max.	
Center frequency	f_C	-	2.450	-	GHz
Insertion loss	α_{IL}		1.0	1.5	dB
Passband (2400- 2500)	B	100			MHz
Amplitude ripple (peak - peak)	$\Delta\alpha$		0.4	0.8	dB
Standing wave ratio	SWR		1.5	2.0	
Impedance	Z		50		Ω
Attenuation	α				
	at DC to 880 MHz	50	55		dB
	at 880 to 960 MHz	45	50		dB
	at 960 to 1990 MHz	34	40		dB
	at 1990 to 2100 MHz	20	25		dB
	at 2100 to 2170 MHz	13	18		dB
	at 3200 to 4000 MHz	18	25		dB
	at 4000 to 4200 MHz	25	30		dB
	at 4200 to 4960 MHz	20	25		dB
	at 4960 to 5787 MHz	13	20		dB

Maximum ratings

IEC climatic category (IEC 68-1)		- 40 /+ 90/56	
Operating temperature	T_{op}	- 40 / + 85	°C

Typical passband characteristic

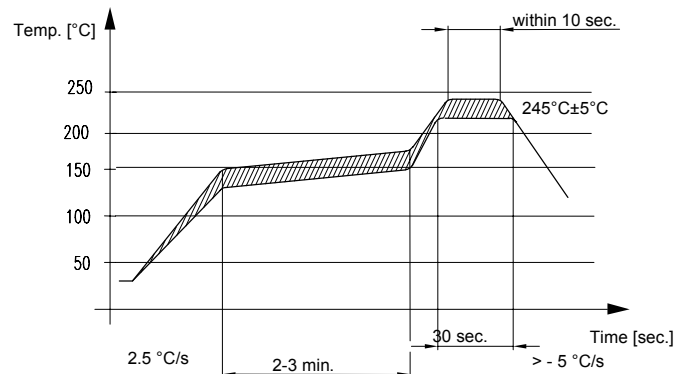
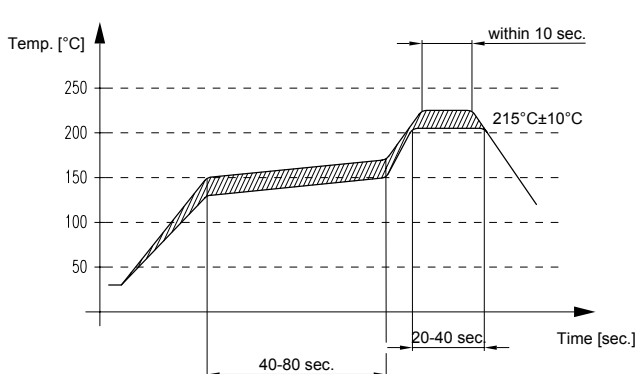


Preliminary Datasheet
Processing information

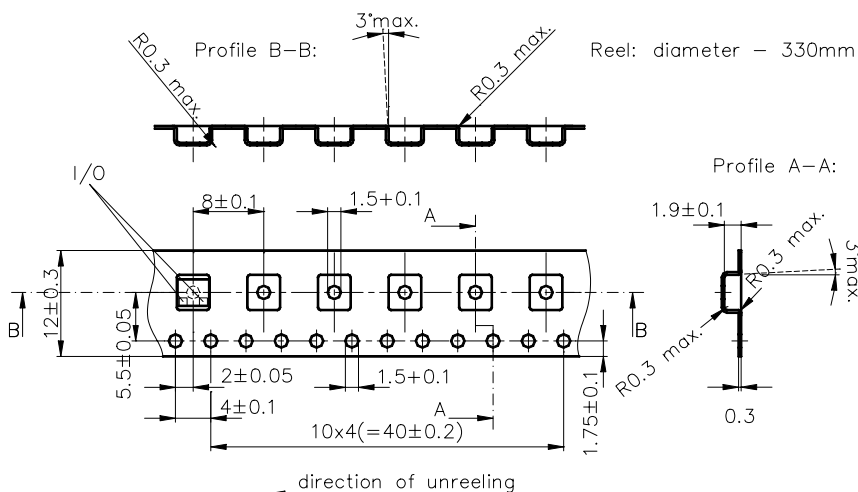
- Wettability to IEC 68-2-58: $\geq 75\%$ (after aging)

Soldering Requirements

	Profile for eutectic SnPb solder paste	Profile for leadfree solder paste	
Soldering type	reflow	reflow	
Maximum soldering temperature (measuring point on top surface of the component)	235 (max. 2 sec.) 225 (max. 10 sec.)	260 (max. 2 sec.) 250 (max. 10 sec.)	°C °C

Recommended soldering conditions (infrared):

Delivery mode

- Blister tape acc. to IEC 286-3, grey
- Pieces/tape: 4000



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