EPCOS

IF Filters for Cordless Phones and ISM-Band Application

Series/Type: **B8103**

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39111B8103L100		2004-05-19	2004-12-31	2005-03-31

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.

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Withdrawn Products

The following products presented in this data sheet are being withdrawn:

B39111B8103L100

Date of withdrawal:	19−MAY−04
Deadline for last orders:	31−DEC−04
Last shipments:	31−MAR−05

For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of the sales offices are given on the Internet at www.epcos.com/sales.

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SAW Components

Data Sheet B 8103

Data Sheet

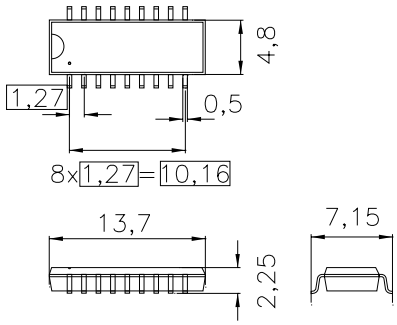
duroplast package **DIP18D**

Features

- IF filter for cordless phone
- Channel selection in ISM system
- **S**urface **M**ounted **T**echnology (**SMT**)
- Standard IC small outline (SO) package
- Balanced and unbalanced operation possible

Terminals

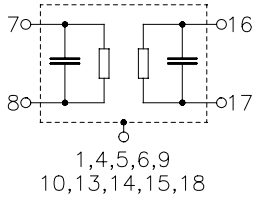
- Tinned CuFe alloy



Dimensions in mm, approx. weight 0,4 g

Pin configuration

8	Input
7	Input ground or balanced input
16	Output
17	Output ground or balanced output
1,4,5,6,9,10, 13,14,15,18	Chip-carrier ground
2,3,11,12	not connected



Type	Ordering code	Marking and Package according to	Packing according to
B8103	B39111-B8103-L100	C61157-A2-A4	F61074-V8058-Z000

Electrostatic **S**ensitive **D**evice (**ESD**)

Maximum ratings

Operable temperature range	T	0/+55	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	

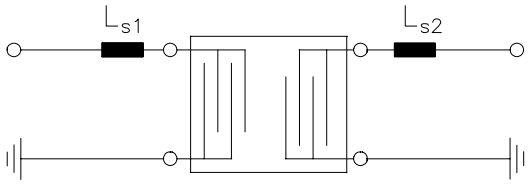
Data Sheet

Characteristics

Reference temperature: T = +25 °C
Terminating source impedance: Z_S = 50 Ω (190 Ω || 160 nH*)
Terminating load impedance: Z_L = 50 Ω (180 Ω || 150 nH*)

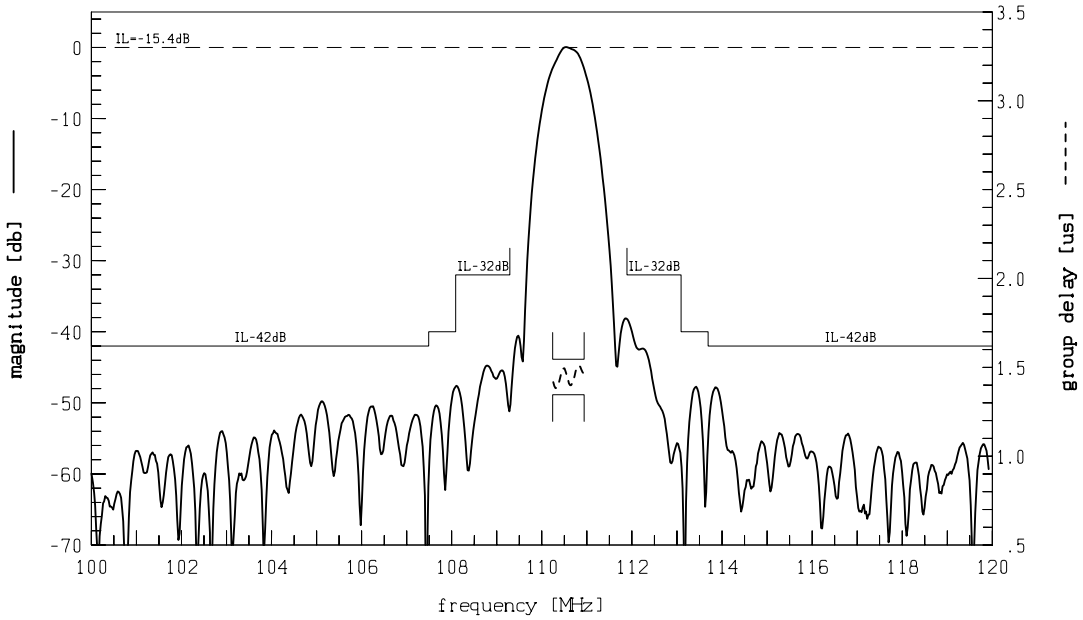
		min.	typ.	max.	
Nominal frequency	f_N	110,53	110,59	110,65	MHz
Insertion attenuationat f_N	α_N	14,0	15,5	17,0	dB
(including losses in matching network)		(11,1*)	(12,6*)	(14,1*)	dB
Pass bandwidth	B_{3dB}	0,66	0,70	0,74	MHz
	B_{30dB}	—	1,9	—	MHz
Group delay ripple (p-p)	$\Delta\tau$				
f_N - 350 kHz ... f_N + 350 kHz		—	130	200	ns
		—	(350*)	(450*)	ns
Relative attenuation (relative to α_n)	α_{rel}				
$f_N \pm 20,0$ MHz ... $f_N \pm 3,1$ MHz		42	48	—	dB
$f_N \pm 3,1$ MHz ... $f_N \pm 2,5$ MHz		40	48	—	dB
$f_N \pm 2,5$ MHz ... $f_N \pm 1,3$ MHz		32	38	—	dB
Impedance at f_N					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	190 || 12	—	Ω || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	180 || 16	—	Ω || pF
Temperature coefficient of frequency	TC_f	—	– 18	—	ppm/K

***) with matching network to 50 Ω** (element values depend on PCB layout):

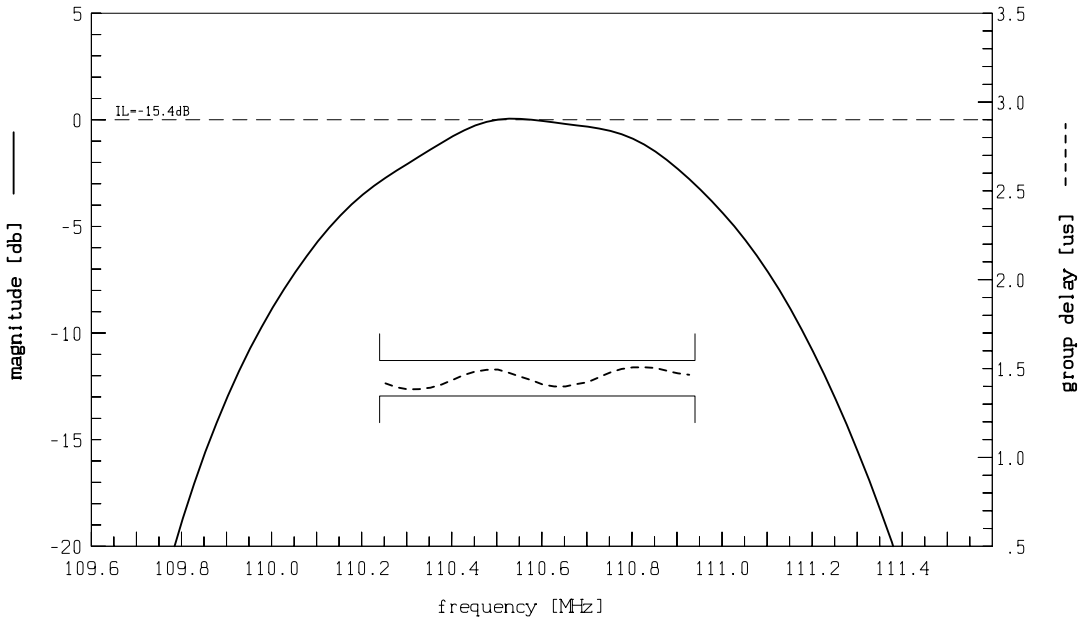


L_{s1} = 100 nH
L_{s2} = 120 nH

Transfer function:



Transfer function (pass band):



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For questions on technology, prices and delivery please contact the sales offices of EPCOS AG or the international representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our sales offices.