EPCOS

SAW Components

Preliminary Data Sheet LF73E

Preliminary Data Sheet

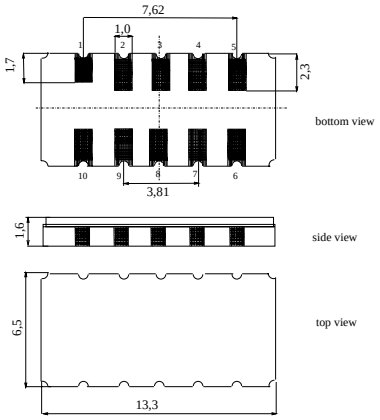
Ceramic package **DCC12A**

Features

- IF low-loss filter
- 7,0 MHz usable bandwidth
- Ceramic SMD package

Terminals

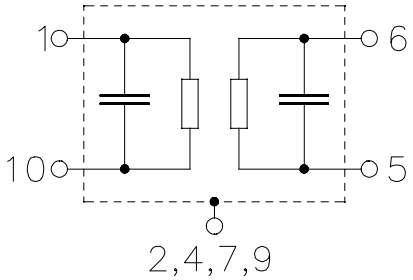
- Gold plated



Dimensions in mm, approx. weight 0,4 g

Pin configuration

1, 10	Balanced Input
5, 6	Balanced Output
2, 4, 7, 9	Case ground
3, 8	To be grounded



Type	Ordering code	Marking and Package according to	Packing according to
LF73E		C61157-A7-A94	F61074-V8131-Z000

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

Maximum ratings

Operable temperature range	T	–40 / +85	˚C	
Storage temperature range	T_{stg}	–55 / +125	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	10	dBm	

Characteristics

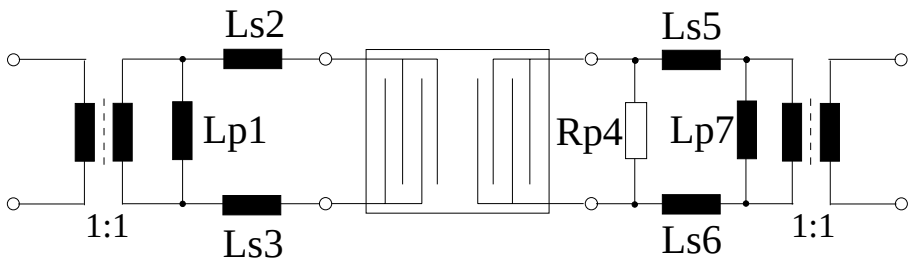
Operating temperature: T = -40˚C ... 85˚C
Terminating source impedance: Z_S = 50 Ω bal. and external matching network
Terminating load impedance: Z_L = 50 Ω bal. and external matching network

		min.	typ.	max.	
Nominal frequency	f_N	—	140,0	—	MHz
Minimum insertion attenuation (including matching network)	α_{min}	—	13,5	15,0	dB
Pass bandwidth					
$\alpha_{rel} \leq 0,6$ dB	$B_{0,6dB}$	—	8,1	—	MHz
Amplitude ripple (p-p) TTE [1]	$\Delta\alpha$				
$f_N \pm 2,75$ MHz		—	0,22	0,3	dB
$f_N \pm 3,5$ MHz		—	0,33	0,6	dB
Absolute group delay (@ f_N)	τ	—	1,0	—	µs
Phase ripple (p-p) TTE [1]	$\Delta\varphi$				
$f_N \pm 2,75$ MHz		—	2,3	4,0	°
$f_N \pm 3,5$ MHz		—	2,6	6,0	°
Relative attenuation (relative to α_{min})	α_{rel}				
$f_N - 7,0$ MHz ... $f_N - 100,0$ MHz		40	45	—	dB
$f_N + 7,0$ MHz ... $f_N + 12,0$ MHz		38	40	—	dB
$f_N + 12,0$ MHz ... $f_N + 100,0$ MHz		40	45	—	dB
Tripple transit suppression	*TTS*	40	43	—	dB
Return loss					
$f_N \pm 3,5$ MHz		—	17	—	dB
Pyroelectric pulse amplitude (p-p)	V_p	—	20	50	mV
Temperature coefficient of frequency	TC_f	—	– 18	—	ppm/K

[1] TTE = Triple transit signal excluded (Gate from 0 µs to 2.6 µs)

Matching network

(Element values depend upon PCB layout)



L_{p1} = 39 nH

L_{s2} = 22 nH

L_{s3} = 27 nH

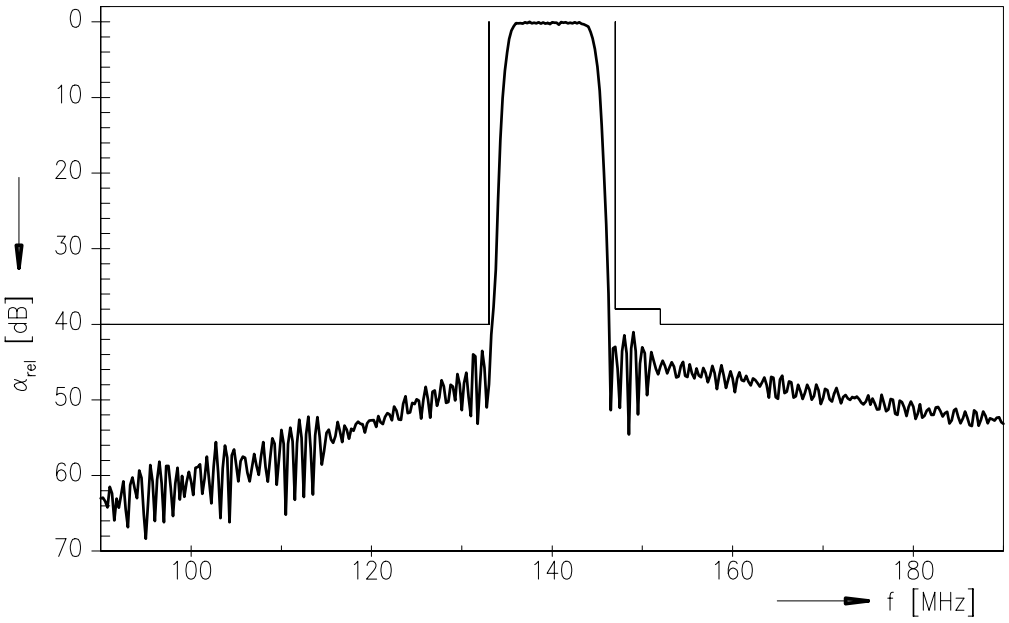
R_{p4} = 680 Ω

L_{s5} = 33 nH

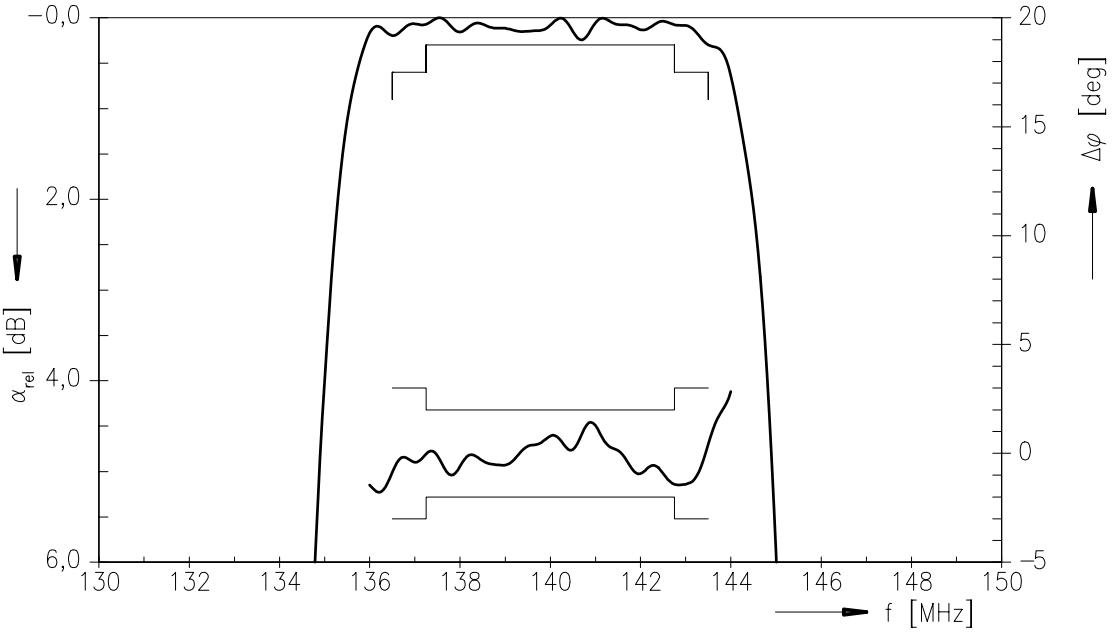
L_{s6} = 27 nH

L_{p7} = 82 nH

Normalized frequency response: **Triple transit signal included**



Normalized frequency response (pass band): **Triple transit signal excluded**



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