



SAW Components

SAW RF filter

GPS

Series/type:	B3528
Ordering code:	B39162B3528U510
Date:	March 22, 2011
Version:	2.2

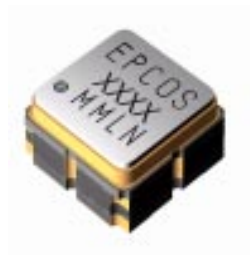
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Data sheet



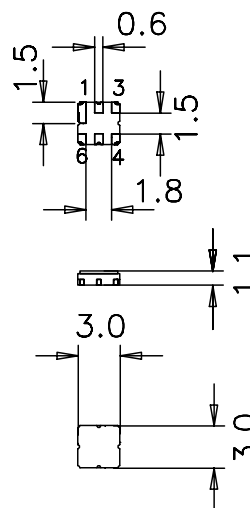
Application

- Low-loss RF filter for GPS applications
- Impedance transformation from 50 Ω to 100 Ω
- Unbalanced to balanced operation
- Very low insertion attenuation
- Low amplitude ripple
- Usable passband 2.0 MHz



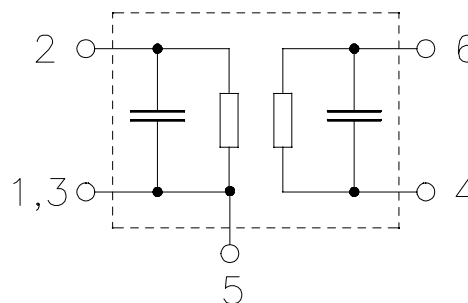
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6D
- RoHS compatible
- Approximate weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- Lead free soldering compatible with J - STD20C
- AEC-Q200 qualified component family
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 2 Input unbalanced
- 4,6 Output balanced
- 1,3,5 Case ground (to be grounded)



Data sheet

Characteristics

Temperature range for specification:	T = -40 °C to +85 °C
Terminating source impedance:	Z _S = 50 Ω
Terminating load impedance:	Z _L = 100 Ω (balanced)

		min.	typ. @ 25 °C	max.	
Center frequency	f _C	—	1575.42	—	MHz
Maximum insertion attenuation	α _{max}				
1574.42 ... 1576.42 MHz		—	1.2	1.9	dB
Amplitude ripple (p-p)	Δα				
1574.42 ... 1576.42 MHz		—	0.2	0.6	dB
VSWR					
Input	1574.42 ... 1576.42 MHz	—	1.3	1.7	
Output	1574.42 ... 1576.42 MHz	—	1.3	1.7	
Attenuation	α				
100.0 ... 960.0 MHz		50	60	—	dB
960.0 ... 1475.0 MHz		45	52	—	dB
1475.0 ... 1515.0 MHz		36	43	—	dB
1515.0 ... 1525.42 MHz		25	36	—	dB
1625.0 ... 1635.0 MHz		25	36	—	dB
1635.0 ... 1675.0 MHz		36	45	—	dB
1675.0 ... 1850.0 MHz		45	55	—	dB
1850.0 ... 2400.0 MHz		40	45	—	dB


Maximum ratings

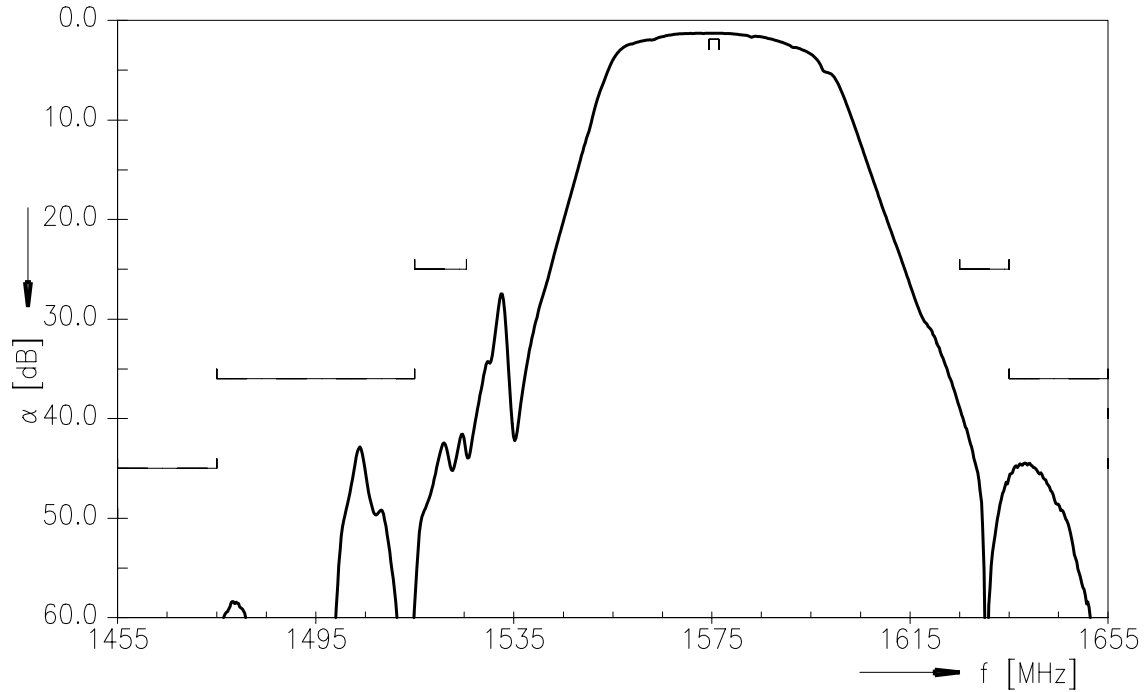
Operable temperature range	T	-45/+125	°C	
Storage temperature range	T _{stg}	-45/+125	°C	
DC voltage	V _{DC}	3	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 10 pulses
Input power at				source 50Ω, load 100Ω
1574.42 ... 1576.42 MHz	P _{IN}	5	dBm	cw
2400 ... 2483.5 MHz	P _{IN}	20	dBm	cw
824...960, 1710...2170 MHz	P _{IN}	25	dBm	cw
960...1525 MHz	P _{IN}	10	dBm	cw

1) acc. to JESD22-A115A (machine model), 10 negative & 10 positive pulses.

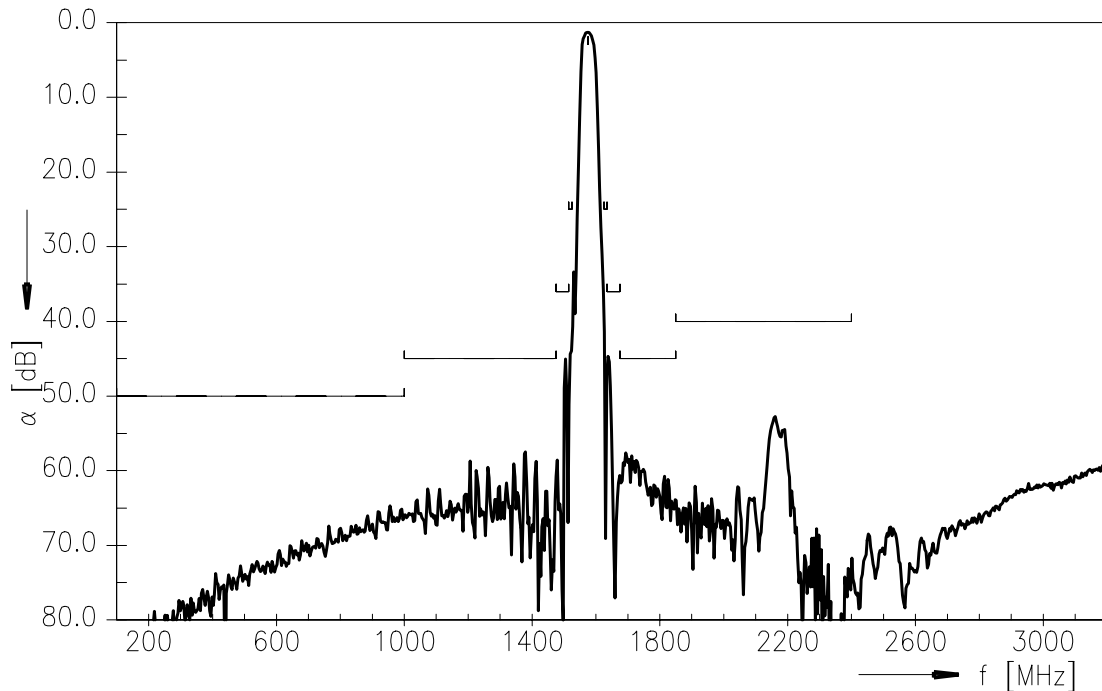
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Transfer function



Transfer function (wideband)




References

Type	B3528
Ordering code	B39162B3528U510
Marking and package	C61157-A7-A68
Packaging	F61074-V8228-Z000
Date codes	L_1126
S-parameters	B3528_NB.s3p, B3528_WB.s3p see file header for port/pin assignment table.
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.
Matching coils	See Inductor pdf-catalog http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation http://www.tdk.co.jp/etvcl/index.htm

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

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