CER1226A - Preliminary

2450-3170MHz Bandpass Filter

Features

- Low Loss with High Rejection
- Low Group Delay Variation

Applications

- Primarily for Radio Altimeter applications

Part Dimensions: 28.5 × 6.2 × 6.1 mm • 3.2 g
Materials: Ag plated ceramic block with brass shield

Description

Surface mount ceramic bandpass filter. Superior rejection, insertion loss, reliability, as well as both peak and average power handling compared other bandpass filter technologies.

Electrical Specifications

Parameter	Frequency (MHz)	Typical at 25°C	Spec. at 25°C	Spec. over -40°C to +85°C
Nominal Impedance	-	50 ohms	-	-
Average Input Power	-	-	-	5.0 Watt max
Peak Input Power	-	-	-	50 Watt max
Input-Output Response				
Passband Insertion Loss	2450-3170	1.2 dB	1.8 dB max	2.0 dB max
Passband Ripple	2450-3170	0.5 dB	0.8 dB max	0.9 dB max
Passband Return Loss	2450-3170	12 dB	10 dB min	10 dB min
GDV over any 120MHz in Passband	2450-3170	0.9 ns	1.2 ns max	1.2 ns max
Attenuation:	1-2000	58 dB	55 dB min	55 dB min
	3500	45 dB	40 dB min	40 dB min
	3600-7000	55 dB	50 dB min	50 dB min

Note: CTS tests each unit to the critical specifications above. Subsequent audits may deviate due to repeatability among different test systems which shall not exceed these allowances.

Specification Allowance	
Insertion Loss	0.1 dB
Return Loss	1.0 dB
Attenuation	1.0 dB

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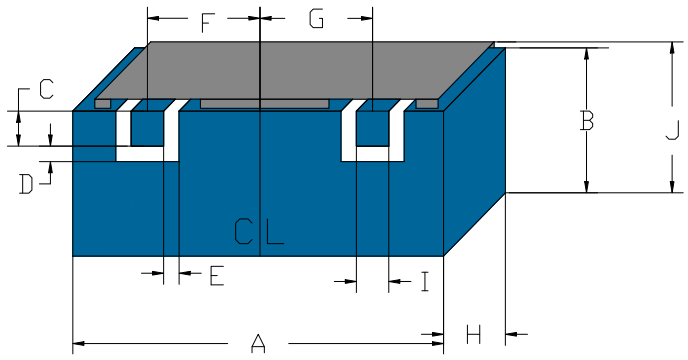
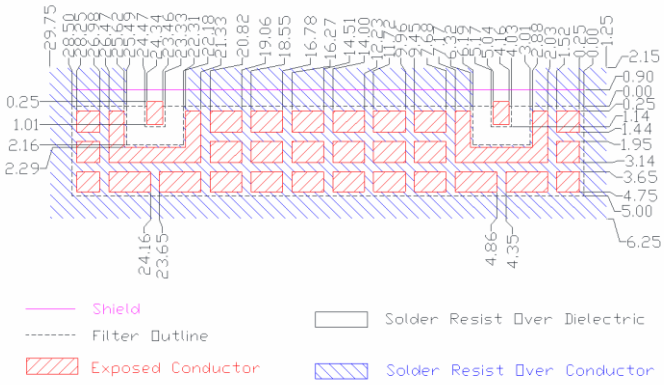
Mechanical Drawing



Dim.	Nominal (mm)	Tolerance (±mm or Max)
A	28.5	max
B	5.00	max
C	1.14	0.13
D	1.02	0.13
E	1.02	0.13
F	9.65	0.13
G	9.65	0.13
H	6.10	max
I	1.14	0.13
J	6.20	max

PCB Layout



IMPORTANT: Please assure >=30mils (0.75mm) thickness of dielectric beneath the I/O Pads and the surrounding clearance zone down to the required ground plane.

Please assure sufficient ground vias between the top metal ground plane and the primary ground plane.

Recommended solder: 4-6 mils of SAC305 with reflow including 120s of soak at 217°C, and up to 30 sec peak at 241°C.

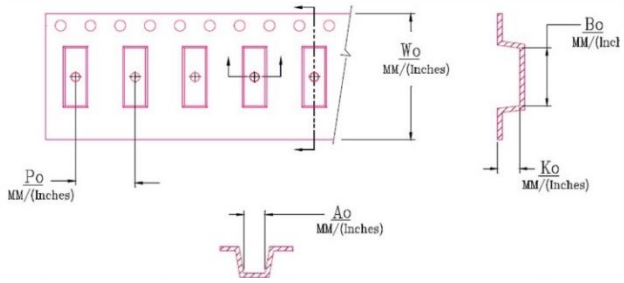
Packaging and Marking

Dimension	Units	Spec.
Reel Diameter	mm	330
Reel Weight	kg	2.6
Reel Quantity	ea.	500

Product Marking

CTS
1226
YYWW

Customer Feed Direction → → →



W_o	A_o	B_o	K_o	P_o
1.732 in 44.0 mm	0.240 in 6.10 mm	1.134 in 28.80 mm	0.252 in 6.40 mm	0.472 in 12.0 mm

Electrical Response