

Approved by:

Checked by:

Issued by:

SPECIFICATION

PRODUCT: SAW FILTER

MODEL: HDF868.3MS5



SHOULDER ELECTRONICS LIMITED

1. Features

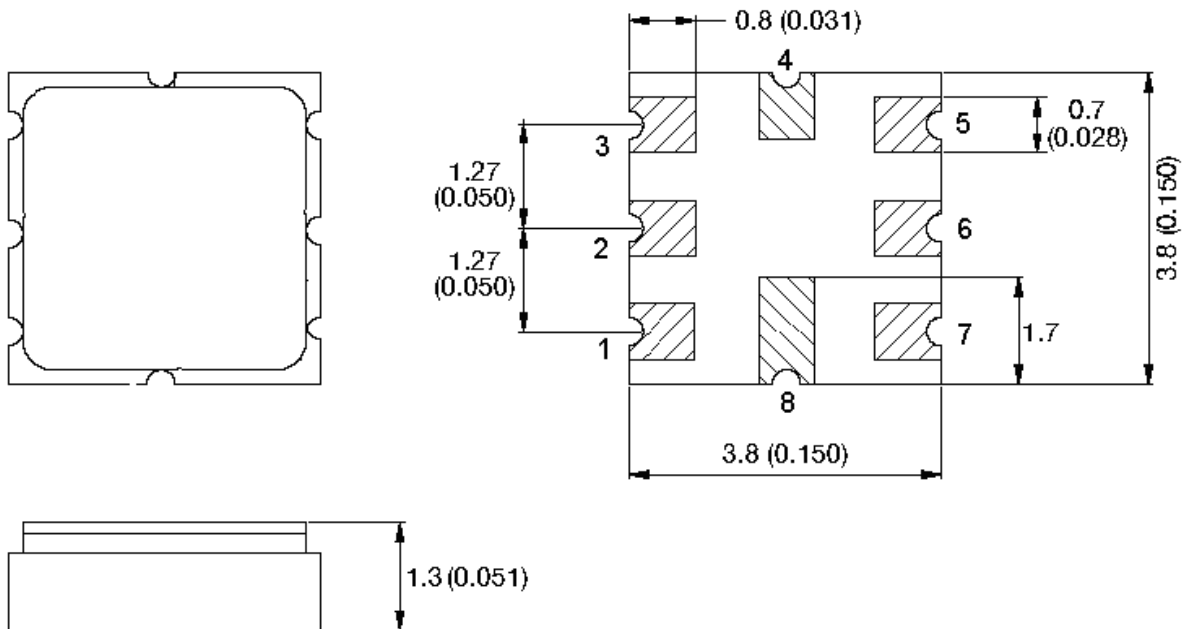
RF bandpass Filter

High Rejection

1.3 MHz useable Passband

Ceramic Package for Surface Mounted Technology

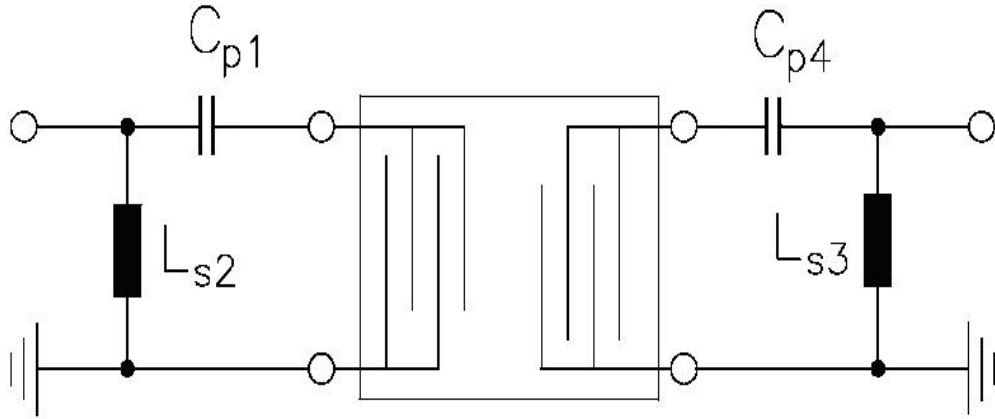
2. Package Drawing & Pinout



Pin configuration

- 1 Input
- 2,7 Input ground
- 5 Output
- 3,6 Output ground
- 4,8 Case Ground

3. Test Circuit

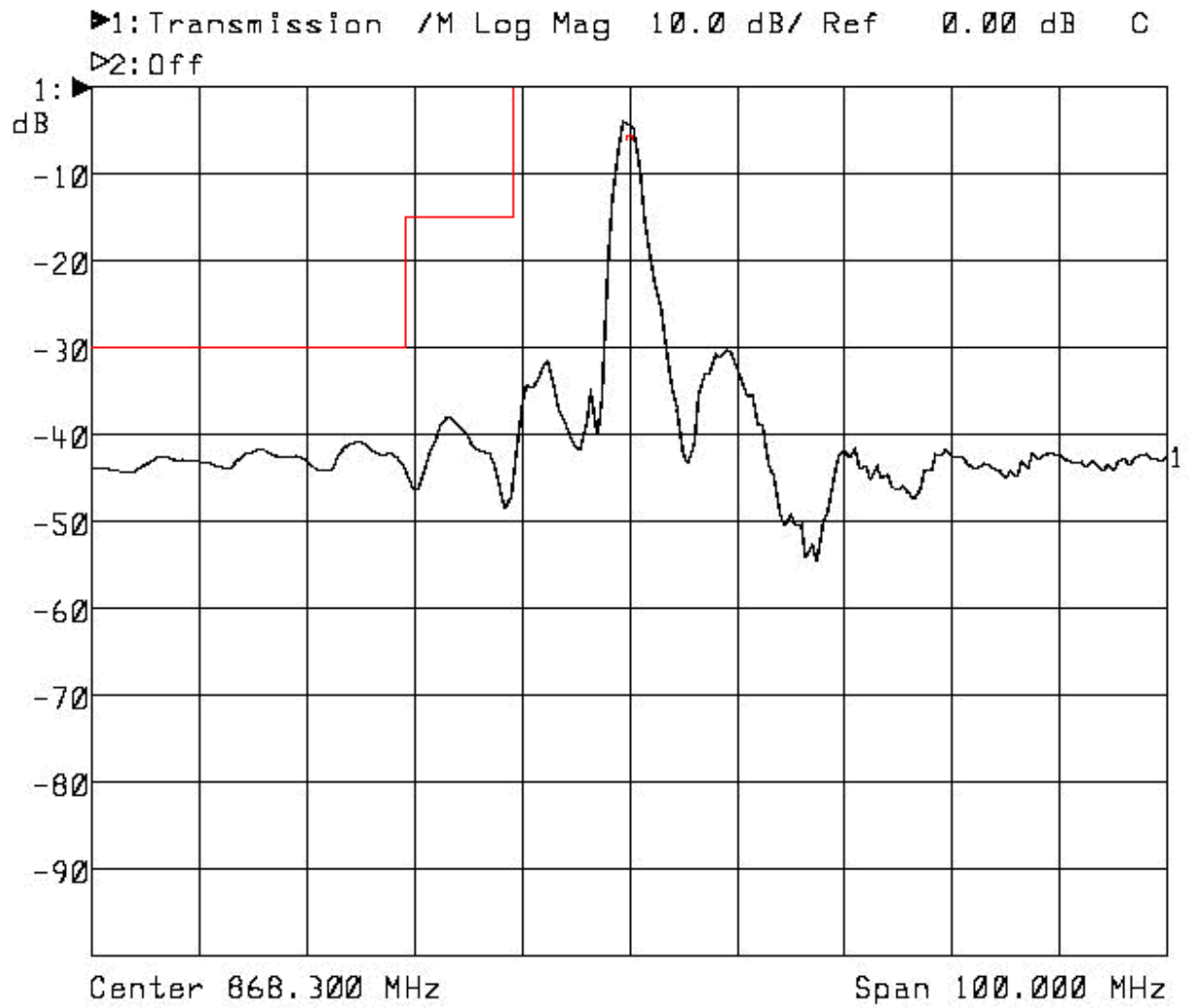


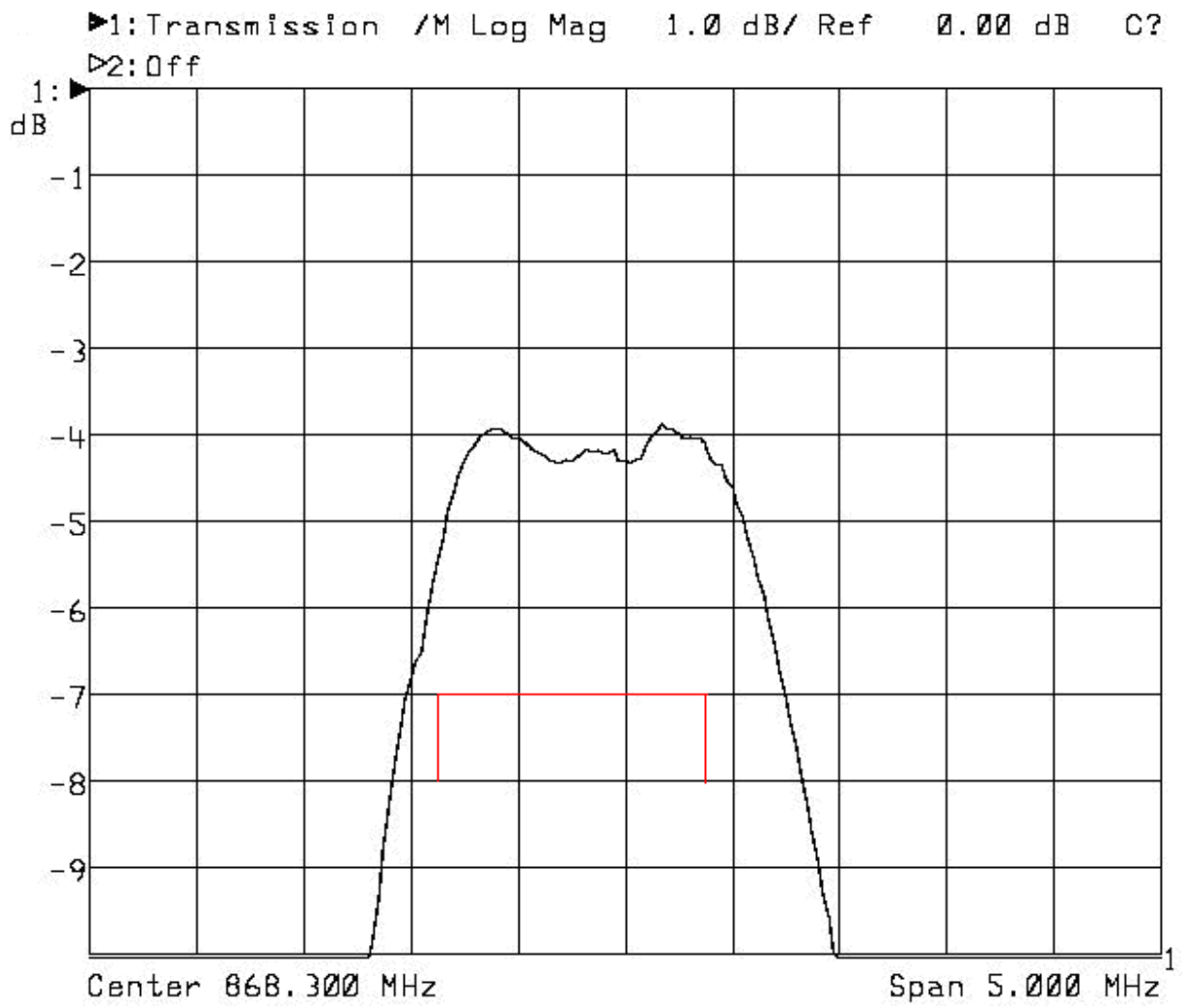
$$C_{p1}=C_{p4}=6.8pF; L_{s2}=L_{s3}=4.7nH$$

4. Technical Characteristics

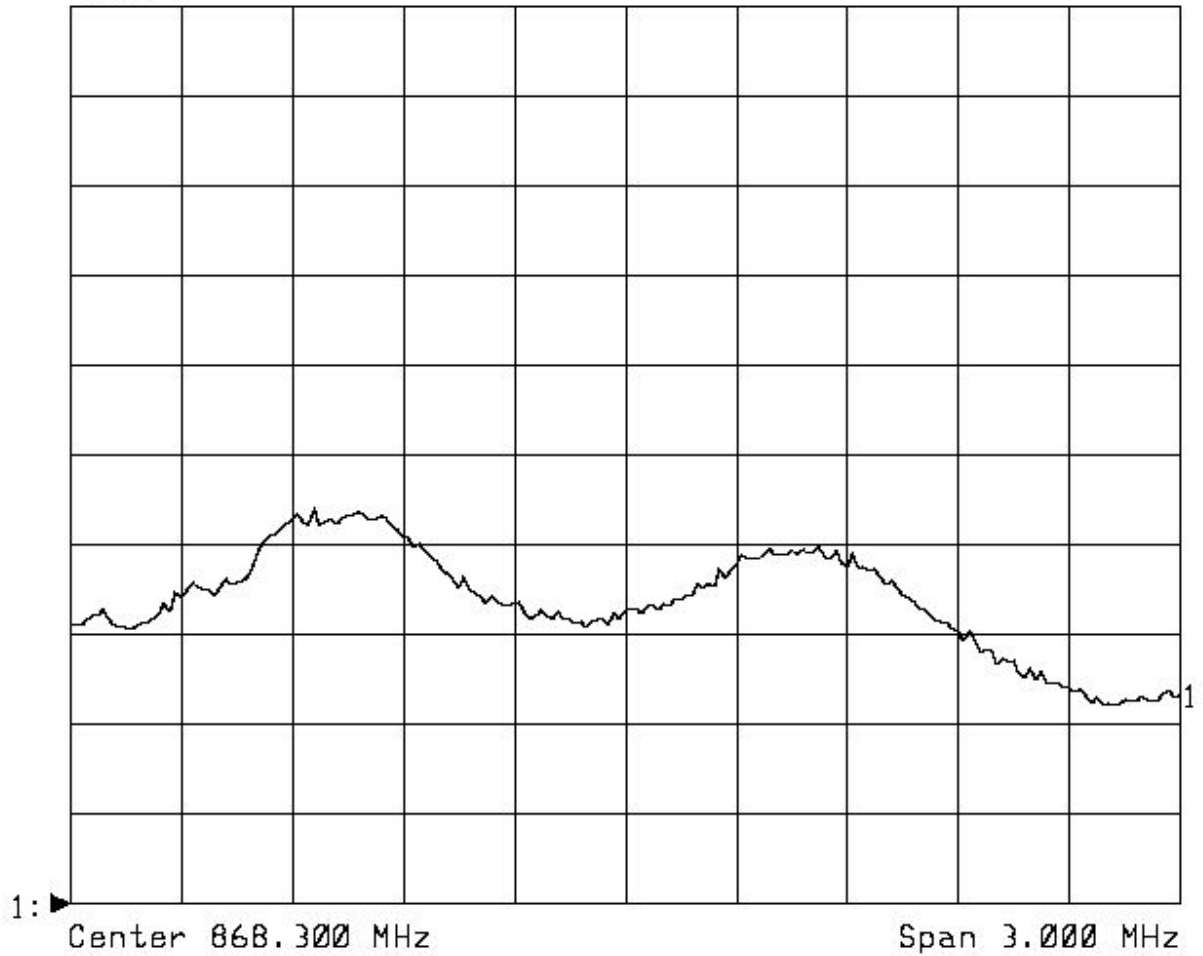
Characteristic		Sym	Min.	Typical	Max.	Units
Center Frequency (+25°C)		f_c		868.30		MHz
Insertion Loss (868.00~868.78)		IL		4.0~4.5	5.0	dB
3dB Bandwidth		BW_3		1.3		MHz
Passband Ripple					± 1.0	dB
Temperature Stability	Turnover Temperature	T_0	15	25	40	°C
	Turnover Frequency	f_0		f_c		MHz
	Frequency Temperature Coefficient	FTC		0.032		ppm/°C ²
Frequency Aging Absolute Value during the First Year		fA		$< \pm 10$		ppm/yr
Rejection	at $f_c-21.4$ MHz(Image)		30	40		dB
	at $f_c-10.7$ MHz(LO)		15	30		
	Ultimate			60		

5. Nominal Response





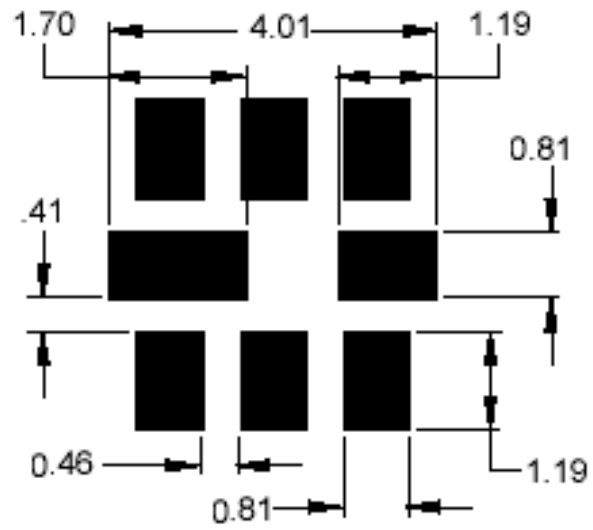
►1:Transmission /M Delay 125 ns/ Ref -152.5 ns C?
 ►2:Off



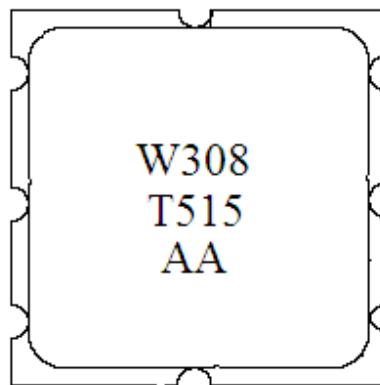
6. Maximum Ratings

Rating	Value	Units
Incident RF Power	+13	dBm
DC Voltage Between Any Two Pins	±30	VDC
Case Temperature	-40 to +85	°C

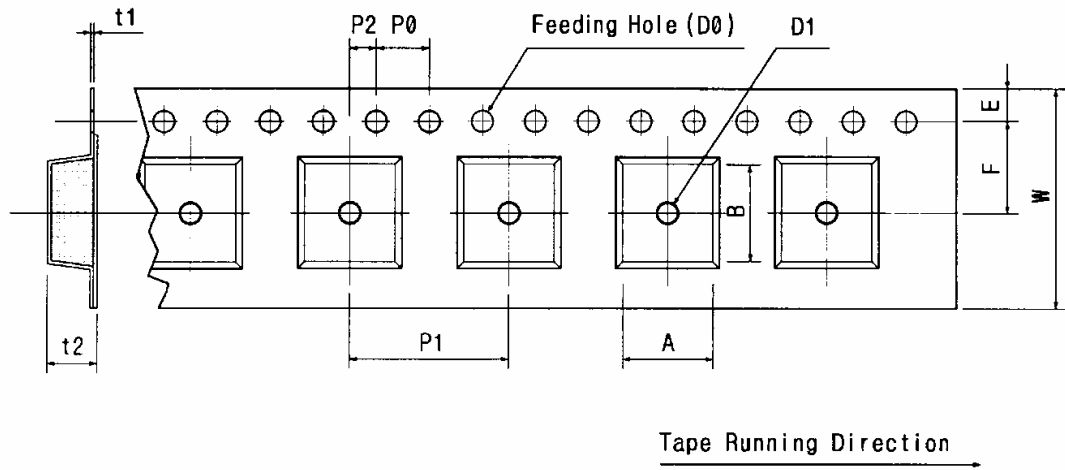
7. Recommended Footprint



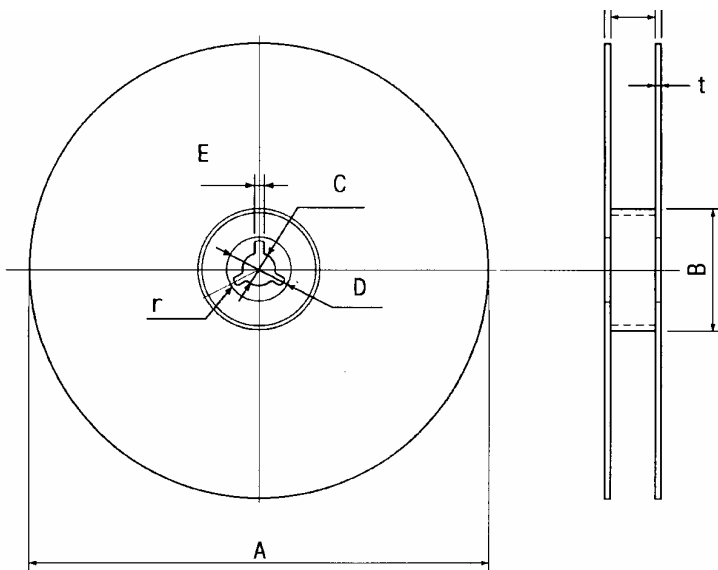
8. Marking



9. Tape and Reel



W	F	E	P0	P1	P2	D0	D1	t1	t2	A	B
12.00	5.50	1.75	4.00	8.00	2.00	Ø1.50	Ø1.0	0.25	1.65	4.04	4.10
±0.30	±0.10	±0.10	±0.10	±0.10	±0.10		±0.25	±0.05	±0.10	±0.10	±0.10



A	B	C	D	E	W	t	r
Ø330	Ø100	Ø13	Ø21	2	13	3	1.0
±1.0	±0.5	±0.5	±0.8	±0.5	±0.3	max.	max.

10. History

Version	Date	Status	Reason of Changes
rev -	05/04/2005	Tentative	Initial specification

11. Reflow Conditions

Lead free

