

CRYSTAL FILTER FOR MINIATURE SIZE RADIO EQUIPMENT/ IF

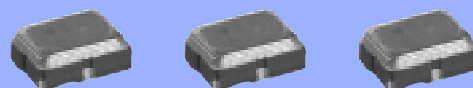
HF - 232A

- Number of poles : 2 pole
- Available frequency range : 70 MHz to 180 MHz
- Old name : TF2-D0AD6

HF - 233A

- Number of poles : 3 pole
- Available frequency range : 100 MHz to 150 MHz
- Old name : TF3-D0AC7

- High frequency and outstanding mechanical strength with original inverted-mesa structure.
- High frequency 3 pole filters with original process technology.
- Applications : Various kinds of miniature size radio equipment



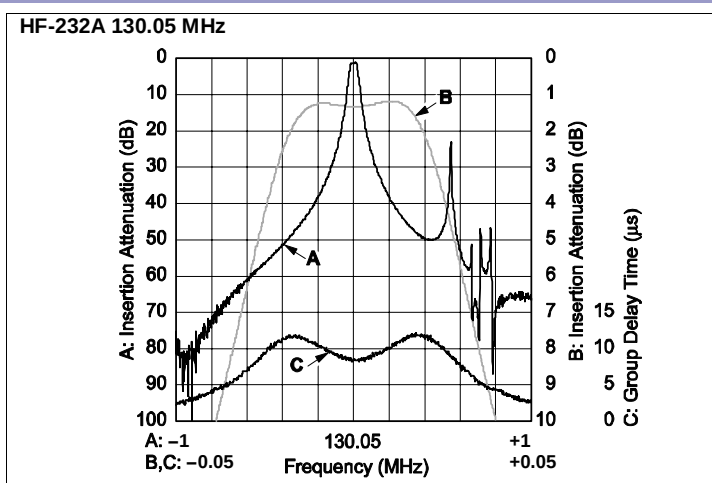
Actual size



Specifications (characteristics)

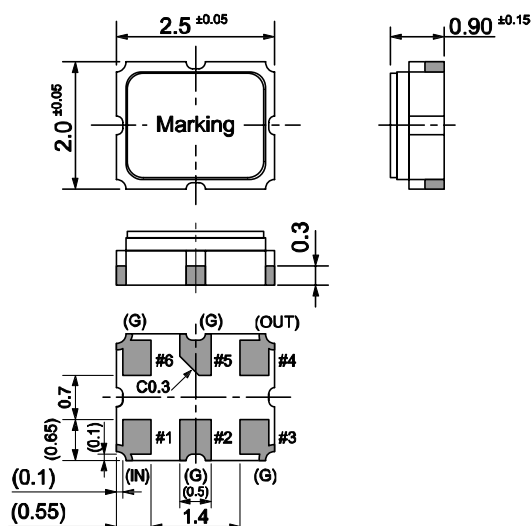
Item	Symbol	HF-232A	HF-233A	Remarks
Standard frequency	f ₀	130.05 MHz	130.05 MHz	Other frequency and passband are available upon request.
Storage temperature range	T _{stg}	-40 °C to +85 °C	-40 °C to +85 °C	
Operating temperature range	T _{use}	-30 °C to +85 °C	-30 °C to +85 °C	
Number of poles	—	2	3	
Passband	BW	f ₀ ±15 kHz Min.	f ₀ ±15 kHz Min.	
Insertion loss	IL	3 dB Max.	3 dB Max.	
Ripple	Ri	1 dB Max.	1 dB Max.	
Stop band attenuation	—	f ₀ ±50 kHz:10 dB Min.	f ₀ ±50 kHz:20 dB Min.	
Attenuation	ATT	f ₀ -900kHz:70 dB Min.	f ₀ -900 kHz:70 dB Min.	
Terminating impedance	Z	200 Ω // 1.7 pF	250 Ω // -1.0 pF	
Package	—	TS-2520	TS-2520	

Electrical DATA



External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)

