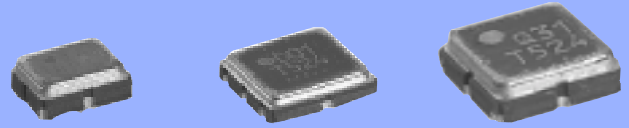


CRYSTAL FILTER FOR MINIATURE SIZE RADIO EQUIPMENT/ IF

TF2-D0AD6 / TF2-45BB1 TF3-J3DC5 / TF3-Q3GC1 TS3-D0A31

- 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 (Package size)

TS-2520

TS-30

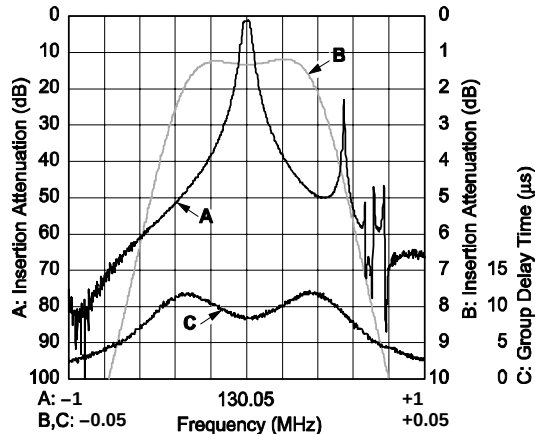
TS-38

Specifications (characteristics)

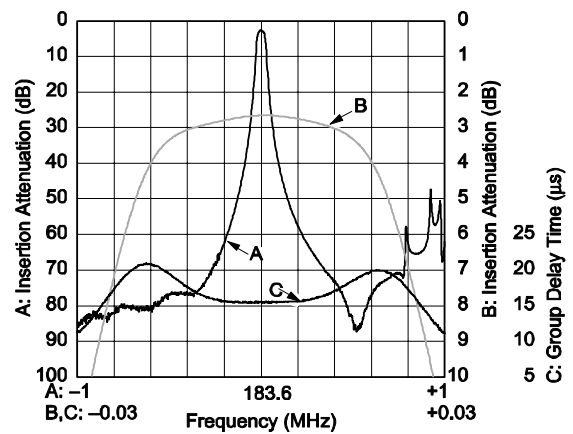
Item	Symbol	TF2-D0AD6	TF3-J3DC5	TF3-Q3GC1	TF2-45BB1	TS3-D0A31
Nominal frequency	f_0	130.05 MHz	183.6 MHz	243.95 MHz	45 MHz	130.05 MHz
Storage temperature range	T_{stg}	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C	-40 °C to +85 °C
Operating temperature range	T_{use}	-30 °C to +85 °C	-30 °C to +85 °C	-30 °C to +85 °C	-30 °C to +85 °C	-30 °C to +85 °C
Number of poles	—	2	3	3	2	3
Passband	BW	$f_0 \pm 10.5$ kHz Min. (1 dB down)	$f_0 \pm 13$ kHz Min. (3 dB down)	$f_0 \pm 130$ kHz Min. (3 dB down)	$f_0 \pm 7.5$ kHz Min. (3 dB down)	$f_0 \pm 14$ kHz Min. (3 dB down)
Insertion loss	IL	3 dB Max.	4.5 dB Max.	3 dB Max.	3.5 dB Max.	3 dB Max.
Ripple	Ri	1 dB Max.	1 dB Max.	1 dB Max.	1 dB Max.	1 dB Max.
Stop band attenuation	—	$f_0 \pm 50$ kHz Max. (10 dB down)	$f_0 \pm 60$ kHz Max. (20 dB down)	$f_0 \pm 600$ kHz Max. (20 dB down)	$f_0 \pm 25$ kHz Max. (15 dB down)	$f_0 \pm 50$ kHz Max. (20 dB down)
Attenuation	ATT	70 dB Min. (f_0 -900 kHz)	60 dB Min. (f_0 -330 kHz to f_0 -660 kHz)	—	70 dB Min. (f_0 -800 kHz to f_0 -1000 kHz)	70 dB Min. (f_0 -800 kHz to f_0 -1000 kHz)
Terminating impedance	Z	200 Ω // 1.7 pF	150 Ω // 0.8 pF	800 Ω // 0.8 pF	650 Ω // 1.5 pF	950 Ω // 1.2 pF
Package	—	TS-2520	TS-30	TS-30	TS-38	TS-38

Electrical DATA

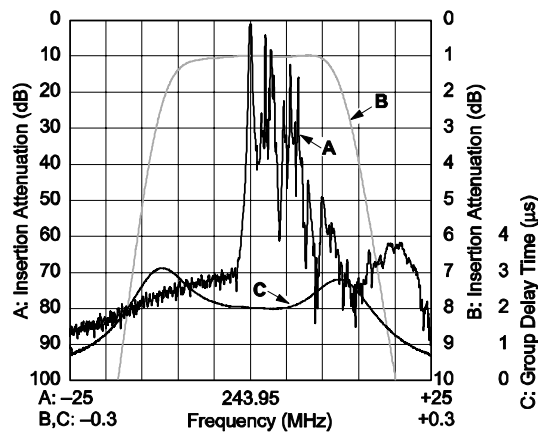
TF2-D0AD6



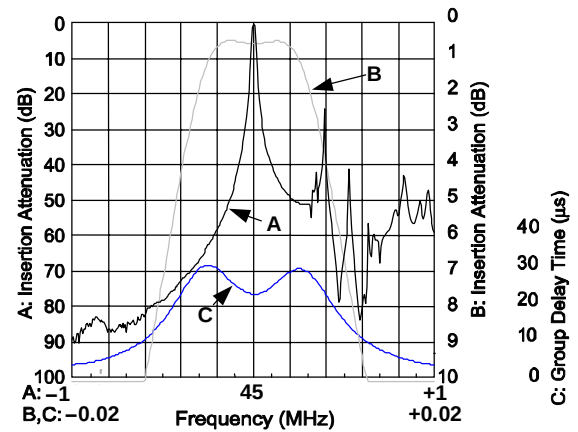
TF3-J3DC5

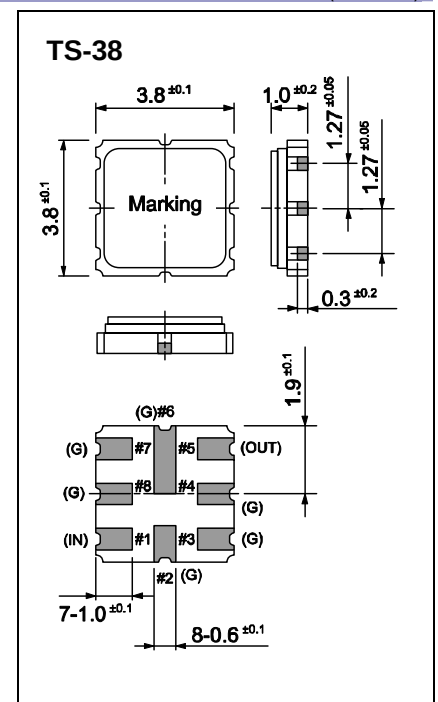


TF3-Q3GC1



TF2-45BB1





(Unit:mm)

