

Crystal Filters

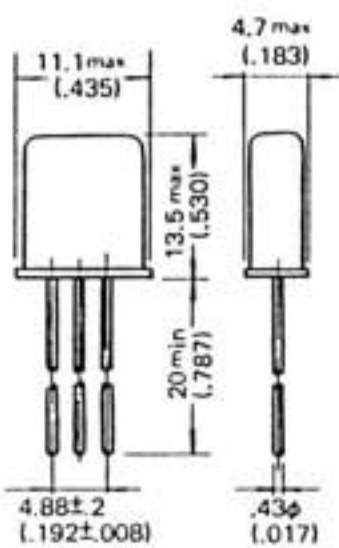
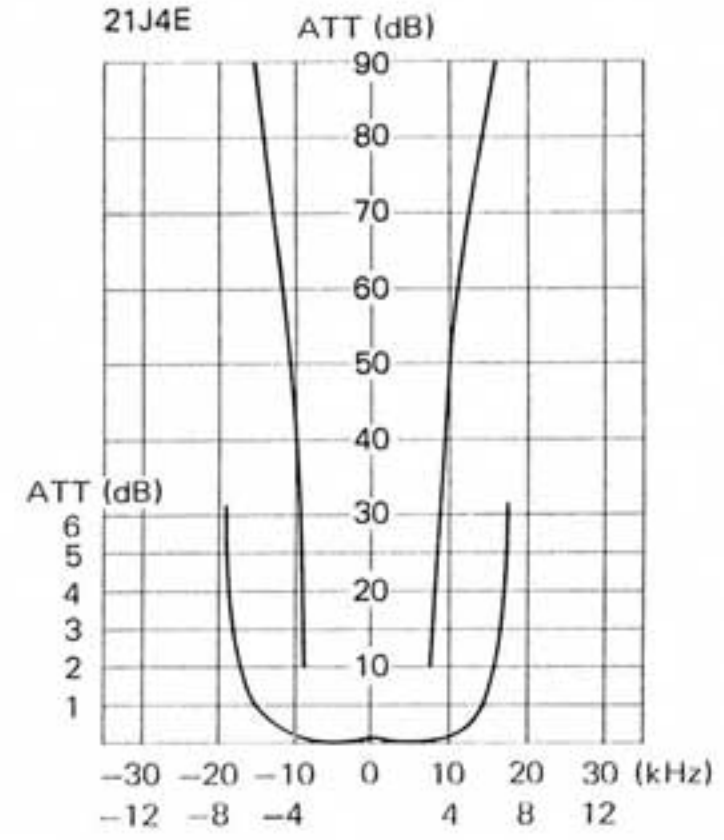
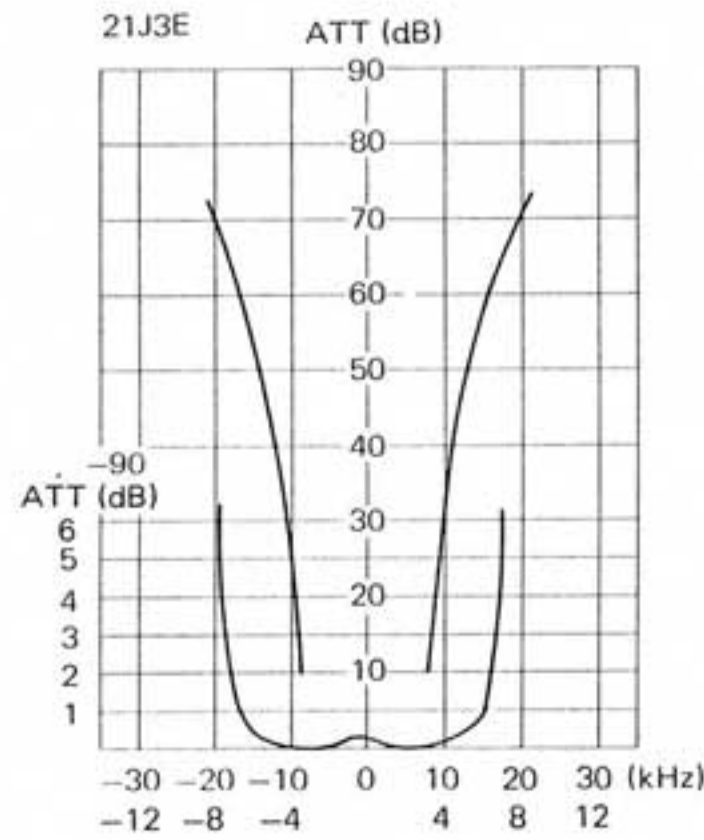
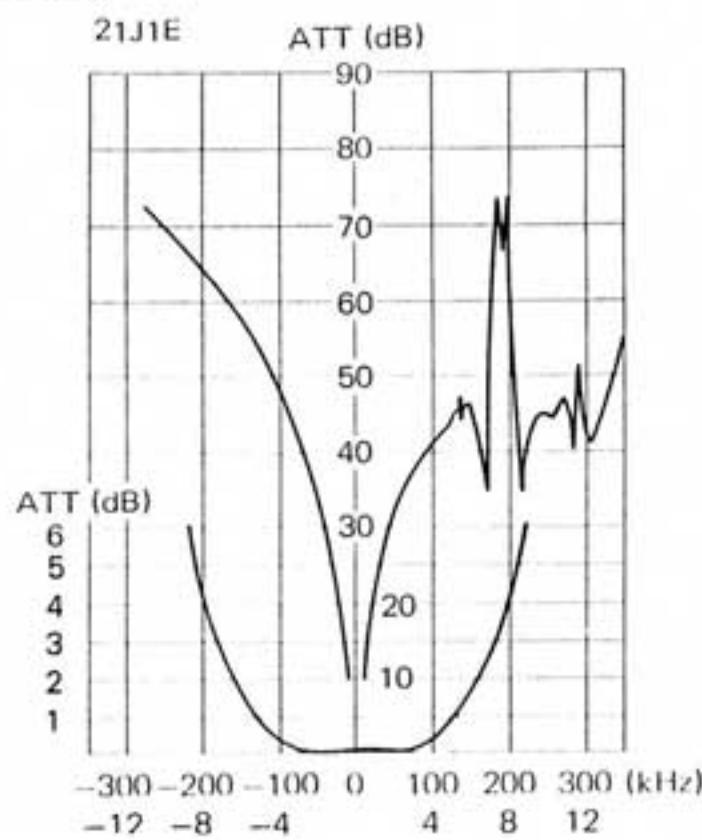
TOYOCOM

HCM FILTERS

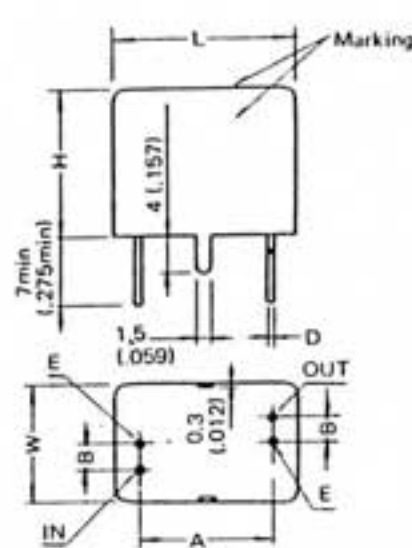
21.4 MHz
20 kHz CHANNEL SPACING

Type	No. of pole	Passband		Stopband				Max. ripple (dB)	Max. loss (dB)	Attenuation guaranteed		Terminating termination (Ω //pF)	Operating Temperature ($^{\circ}$ C)	Case
		(dB)	(kHz)	(dB)	(kHz)	(dB)	(kHz)			(dB)	(fo \pm kHz)			
21J1E	2	3	± 6.0	20	± 25	-	-	0.5	1.5	35	+350~+1000	1.2k//3	-40~+80	UM-1
21J1E5	2	3	± 6.0	20	± 25	-	-	0.5	1.5	50	-200~-1000	1.6k//2.5	-40~+80	UM-2
21J2E2	4	3	± 6.0	40	± 20	-	-	1.0	2.0	65	+350~+1000	1.2k//2.5	-40~+80	(UM-1)x2
21J2E5	4	3	± 6.0	40	± 20	-	-	1.0	2.0	80	-200~-1000	1.6k//2	-40~+80	(UM-2)x2
21J3E	6	3	± 6.0	45	± 14	65	± 20	2.0	2.5	65	$\pm 20 \sim \pm 300$	1.2k//2.5	-40~+80	H-1
21J3E5	6	3	± 6.0	45	± 14	65	± 20	2.0	2.5	65	$\pm 20 \sim \pm 300$	1.6k//2	-40~+80	H-3
21J4E	8	3	± 6.0	65	± 14	90	± 20	2.0	3.0	65	$\pm 20 \sim \pm 300$	1.2k//2.5	-40~+80	H-1
21J4E5	8	3	± 6.0	65	± 14	90	± 20	2.0	3.0	65	$\pm 20 \sim \pm 300$	1.6k//2	-40~+80	H-4
T14E01-J	8	3	± 6.0	70	± 14	90	± 20	2.0	3.5	90	$\pm 20 \sim \pm 300$	910//15	-40~+80	T-1
T24E01-J	8	3	± 6.0	65	± 14	90	± 20	2.0	4.0	90	$\pm 20 \sim \pm 300$	470//15	-40~+80	T-2
21J5E	10	6	± 6.0	75	± 14	90	± 16	2.0	4.0	90	$\pm 16 \sim \pm 300$	1.2k//2.5	-40~+80	H-2
21J5E5	10	6	± 6.0	75	± 14	90	± 16	2.0	4.0	90	$\pm 16 \sim \pm 300$	1.6k//2	-40~+80	H-5

Electrical data



HC-49/U
(resistance weld)



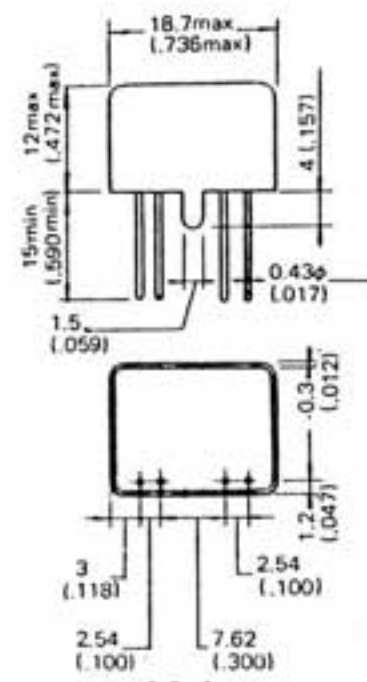
(H-3) and (H-4)

	L	W	H	A	B	D ϕ
H-1	11.0	8.5	11.5	7.4	2.0	0.3
H-2	13.4	8.5	11.0	9.8	2.0	0.3
H-3	15	12	15	9.0	2.5	0.43
H-4	18.5	12	15	13.4	2.5	0.43
H-5	23	12	15	17.8	2.5	0.43
H-6	28	12	15	22.2	2.5	0.43

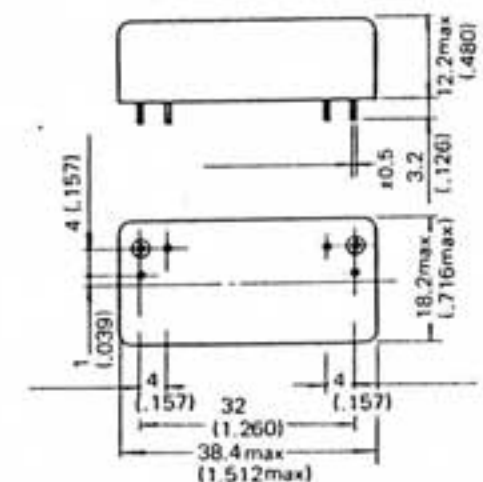
(in mm)

	L	W	H	A	B	D ϕ
H-1	.433	.335	.452	.291	.078	.012
H-2	.527	.335	.433	.386	.078	.012
H-3	.590	.472	.590	.354	.098	.017
H-4	.728	.472	.590	.527	.098	.017
H-5	.960	.472	.590	.701	.098	.017
H-6	1.102	.472	.590	.874	.098	.017

(in inch)



M-1



T-1