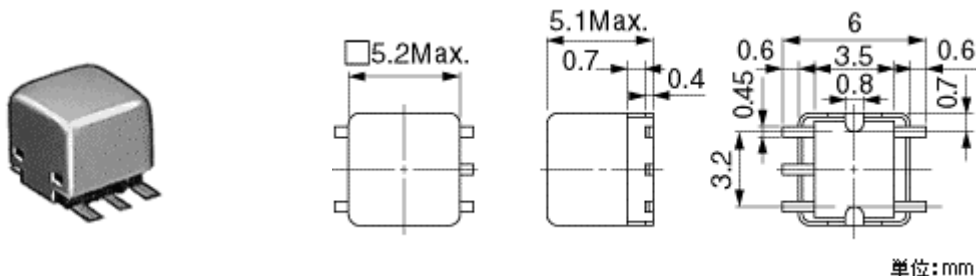


### TYPE 4FUS



#### Features

- Ultra-compact LC block filters based on 4mm square coil units. Suitable for surface mounting.
- Basic units will take up to 2 built-in capacitors.
- Adjustable and non-adjustable types available. Up to three units may be used in combination.
- Highly adaptable – suitable for highpass, lowpass, and bandpass filters, delay lines, equalizers, etc.
- Shield case minimizes interference with other components, allowing high-density layout.
- Suitable for surface mounting (reflow soldering).

#### Applications

- Developed for use in the increasingly compact world of video equipment.

#### Specifications

Effective bandwidth	0.1 ~ 15MHz
Maximum inductance	600 $\mu$ H
Approx. Q value under no load	40
Internal capacitor	4~750pF up to 2 int.
Max. no. combinable	3

#### Filters for RGB Encoder

Toko part no.	Application	Impedance	Fig.
H354BAI-6544	3.58MHz BPF	1kohm	1
H354BAI-6545	4.43MHz BPF	1kohm	2
H354LAI-3387DDD	Y Delay Line	1kohm	3

#### Filters for Digital Encoder

Toko part no.	Impedance	Fig.
H354LAI-8000	150ohm	4

#### Filters for Digital CATV

Toko part no.	Application	Fig.
H354LAI-8000	Y, C, Comp LPF	4

#### Wide-band Delay Lines

Toko part no.	Group delay	Impedance	Fig.
TG354EDH-6882	1ns	150 ohm	5
TG354EDH-6883	2ns	150 ohm	6
TG354EDH-6884	3ns	150 ohm	7
TG354EDH-6885	4ns	150 ohm	8
TG354EDH-6886	5ns	150 ohm	9
TG354EDH-6887	6ns	150 ohm	10
TG354EDH-6888	7ns	150 ohm	11
TG354EDH-6889	8ns	150 ohm	12
TG354EDH-6890	9ns	150 ohm	13
TG354EDH-6891	10ns	150 ohm	14

#### Low Pass Filters

Toko part no.	Cutoff Freq.	Group delay	Trap	Fig.
H354LAI-2258	1.1MHz	300ns	3.58MHz	15
H354LBI-2542	1.2MHz	220ns	3.58MHz	16
H354LAI-3056	0.5MHz	440ns	4.43MHz	17
H354LCI-2913	0.7MHz	360ns	4.43MHz	18
H354LNI-2882	1.0MHz	260ns	4.43MHz	19
H354LAI-4862	1.2MHz	280ns	4.43MHz	20
H354LAI-4968	1.3MHz	250ns	4.43MHz	21
H354LBI-3357	1.0MHz	330ns	7.16MHz	22
H354LBI-3284	1.5MHz	210ns	7.16MHz	23
H354LAI-4435	2.8MHz	120ns	10.7MHz	24
H354LAI-4945	1.2MHz	260ns		25
H354LAI-4703	1.3MHz	390ns		26
H354LAI-4626	1.5MHz	220ns	14.2MHz	27
H354LAI-4679	2.0MHz	150ns	5.4MHz	28
H354LAI-4736	2.5MHz	150ns	4.8/8.4MHz	29
H354LAI-3358	3.0MHz	100ns		30
H354LAI-4875	3.5MHz	90ns		31
G354LAI-2997	4.5MHz	120ns		32
H354LAI-3158	5.0MHz	80ns		33
H354LAI-4402	5.5MHz	65ns	9.2MHz	34
H354LAI-3159	6.0MHz	70ns		35
G354LAI-3453	7.0MHz	50ns		36
H354LAI-1226	8.0MHz	70ns		37
G354LAI-3451	9.0MHz	30ns		38

**Band Pass Filters**

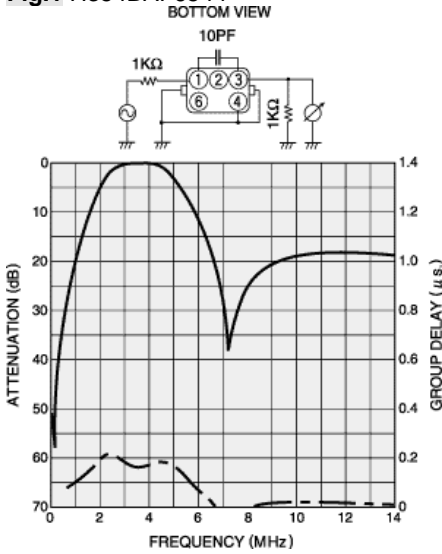
Toko part no.	Center Freq.	Bandwidth (-3dB)	Group delay	Fig.
H354BAI-4184	3.58MHz	3.8MHz	100ns	39
H354BAI-2660	3.58MHz	3.0MHz	120ns	40
H354BAI-4163	3.58MHz	2.8MHz	150ns	41
H354BAI-3200	3.58MHz	2.2MHz	200ns	42
H354BAI-4404	3.58MHz	1.8MHz	220ns	43
H354BAI-2998	3.58MHz	1.8MHz	240ns	44
H354BAI-3946	3.58MHz	1.2MHz	270ns	45
H354BAI-3195	3.58MHz	1.4MHz	300ns	46
H354BAI-3160	3.58MHz	1.3MHz	350ns	47
H354BAI-3927	3.58MHz	1.1MHz	400ns	48
H354BAI-2771	3.58MHz	1.0MHz	450ns	49
H354BAI-4601	3.58MHz	0.8MHz	510ns	50
H354BAI-3287	4.43MHz	2.1MHz	150ns	51
H354BAI-3989	4.43MHz	2.3MHz	200ns	52
H354BAI-1146	4.43MHz	1.6MHz	250ns	53
H354BAI-1748	4.43MHz	1.6MHz	280ns	54
H354BAI-4214	4.43MHz	1.1MHz	380ns	55

**Equalizing Transformers**

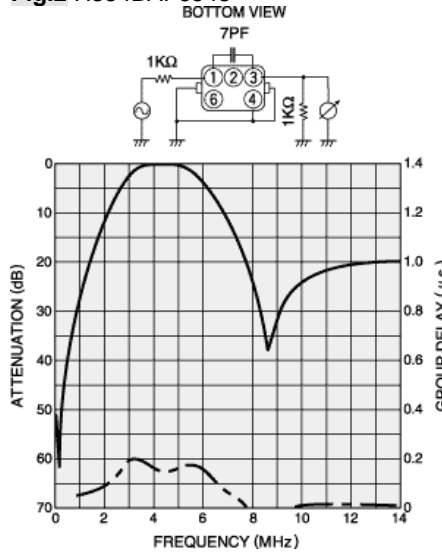
Toko part no.	Bandwidth	Group delay	Fig.
G354EAI-4714	1.5MHz	60ns	56
G354EAI-3049	5.0MHz	80ns	57
G354EAI-4346	2.0MHz	150ns	58
TG354EAI-5111	1.0MHz	180ns	59
G354EAI-4947	1.5MHz	220ns	60
G354EAI-1089	1.5MHz	240ns	61
G354EAI-1388	1.5MHz	250ns	62
G354EAI-4249	0.5MHz	400ns	63
G354EAI-4647	0.4MHz	500ns	64
G354EAI-4648	0.4MHz	610ns	65

**Typical Characteristics**

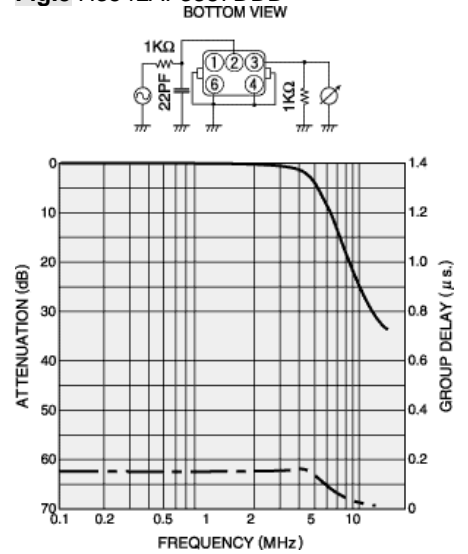
**Fig.1 H354BAI-6544**



**Fig.2 H354BAI-6545**

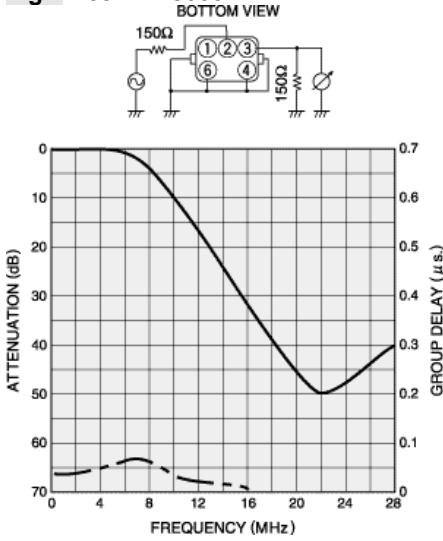


**Fig.3 H354LAI-3387DDD**

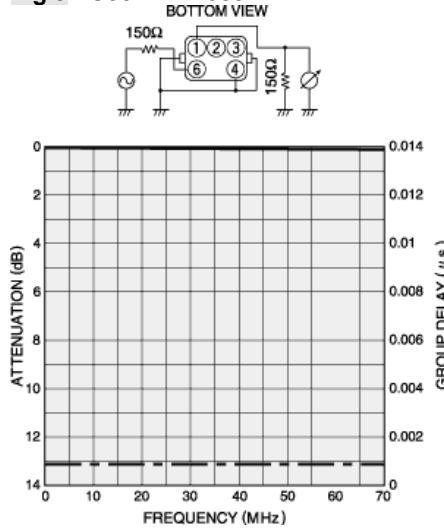


*Typical Characteristics*

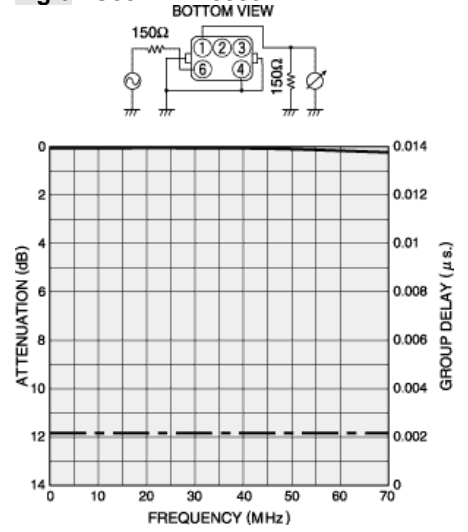
**Fig.4** H354LAI-8000



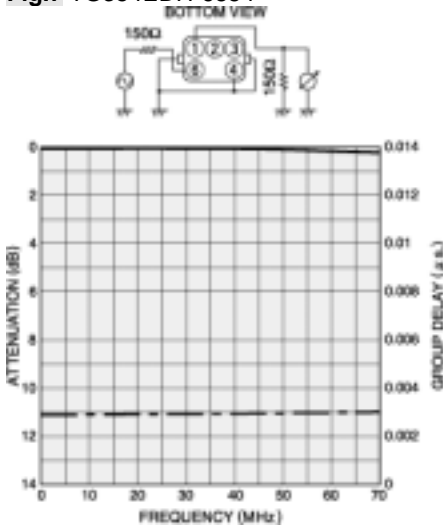
**Fig.5** TG354EDH-6882



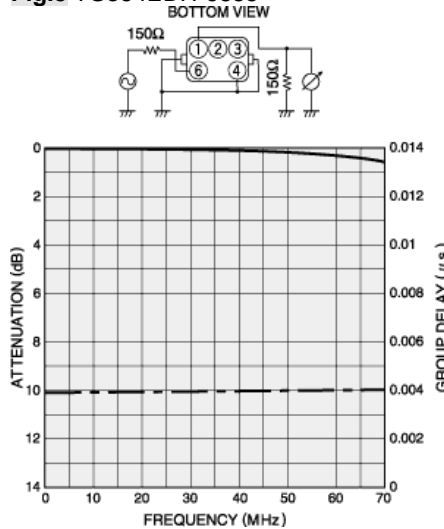
**Fig.6** TG354EDH-6883



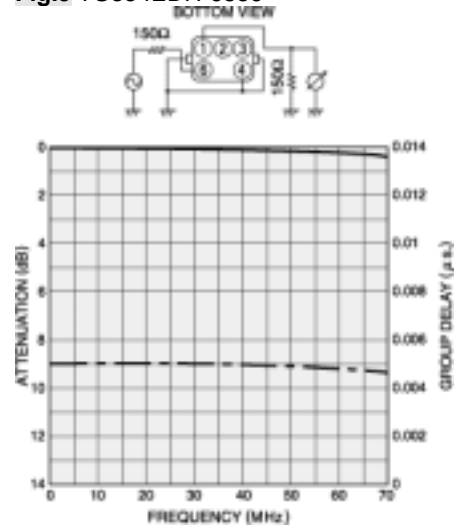
**Fig.7** TG354EDH-6884



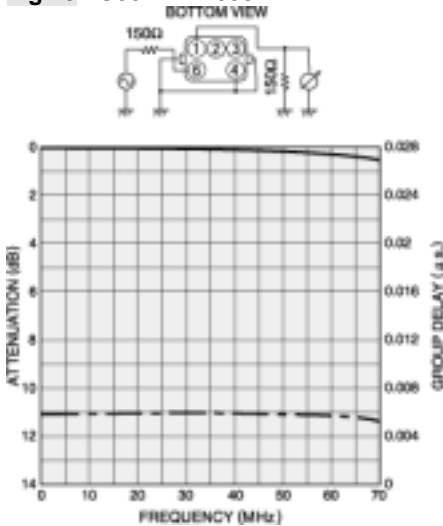
**Fig.8** TG354EDH-6885



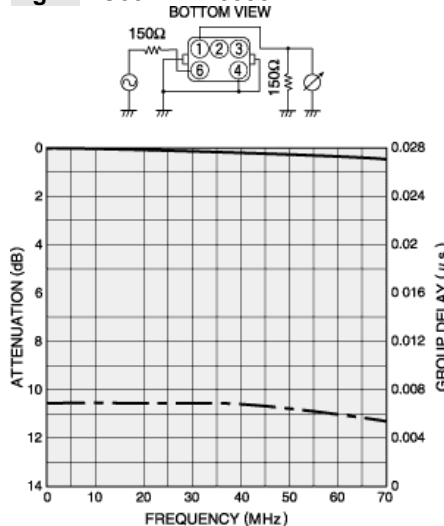
**Fig.9** TG354EDH-6886



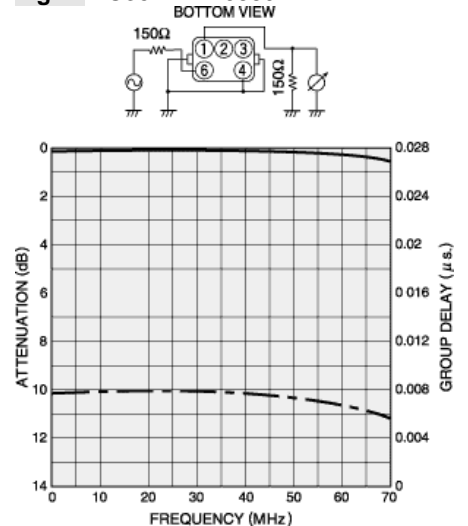
**Fig.10** TG354EDH-6887



**Fig.11** TG354EDH-6888

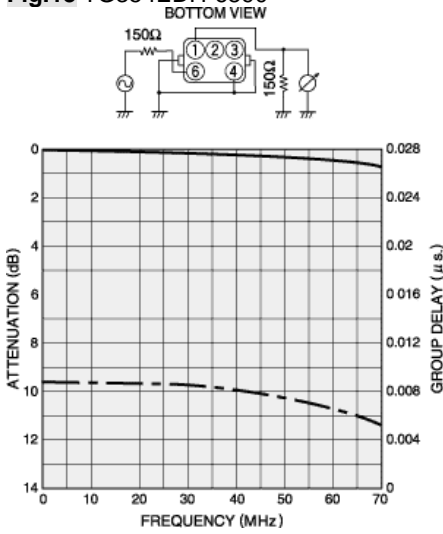


**Fig.12** TG354EDH-6889

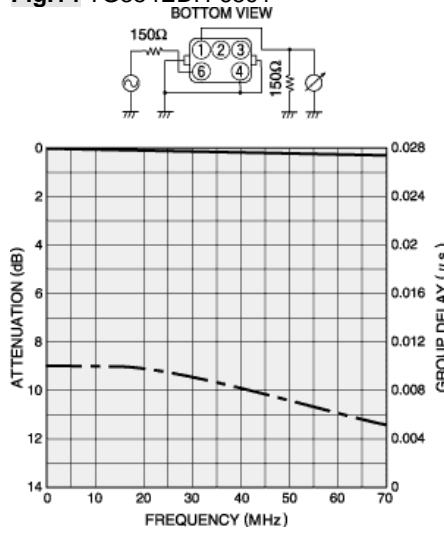


*Typical Characteristics*

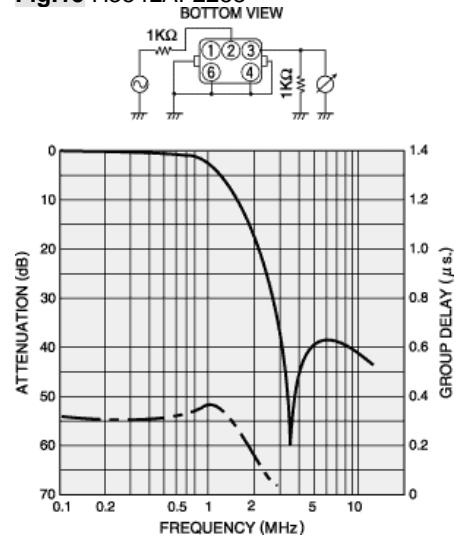
**Fig.13** TG354EDH-6890



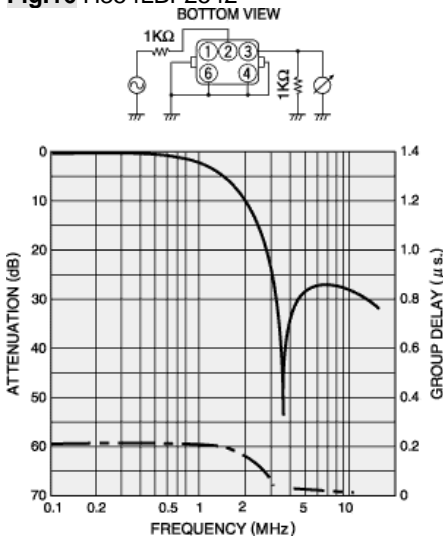
**Fig.14** TG354EDH-6891



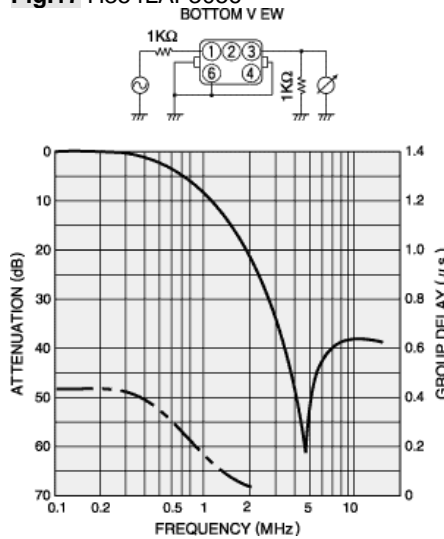
**Fig.15** H354LAI-2258



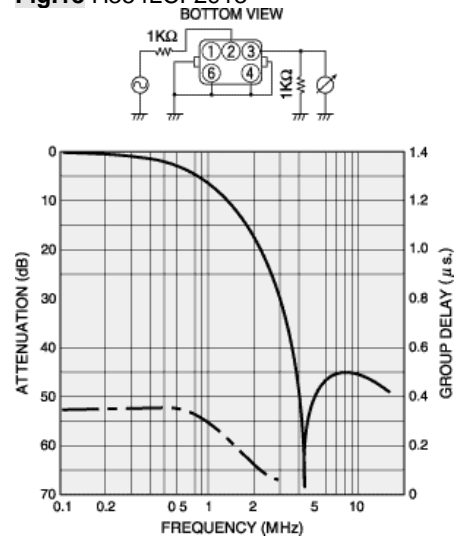
**Fig.16** H354LBI-2542



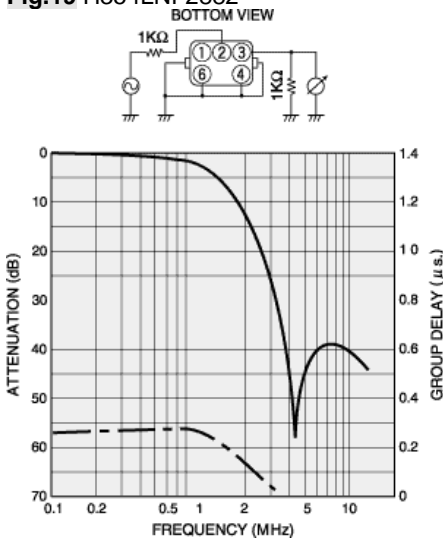
**Fig.17** H354LAI-3056



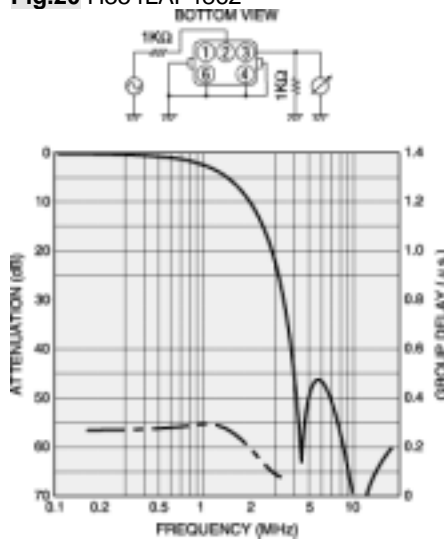
**Fig.18** H354LCI-2913



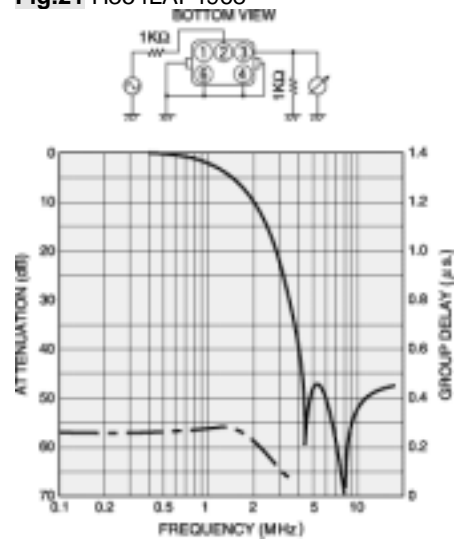
**Fig.19** H354LNI-2882



**Fig.20** H354LAI-4862

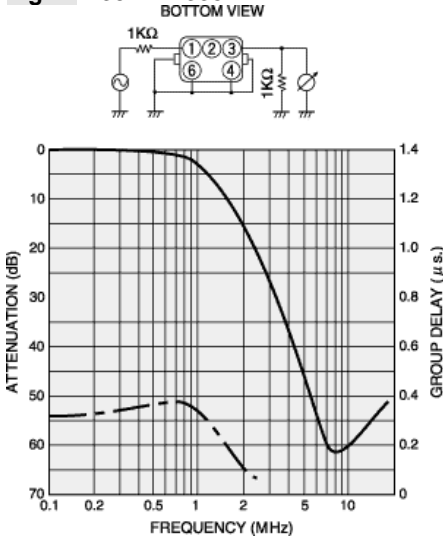


**Fig.21** H354LAI-4968

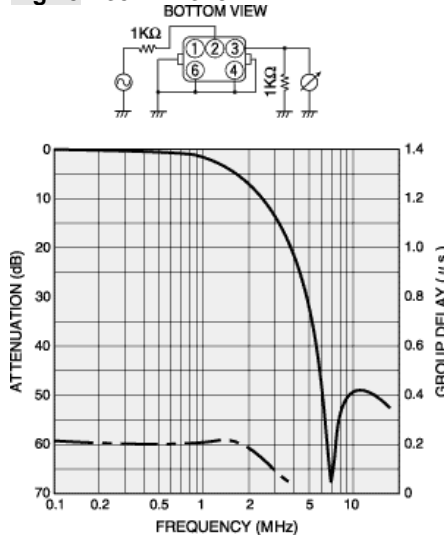


*Typical Characteristics*

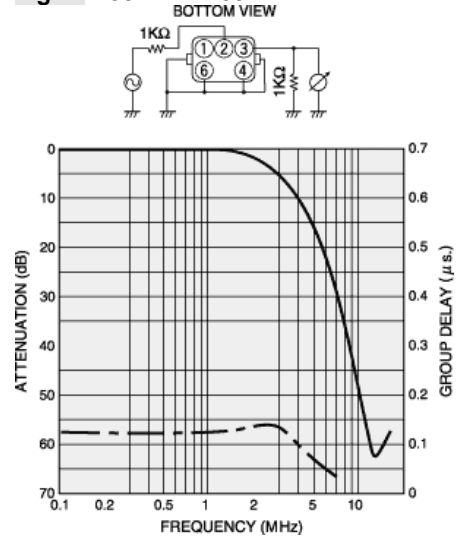
**Fig.22** H354LBI-3357



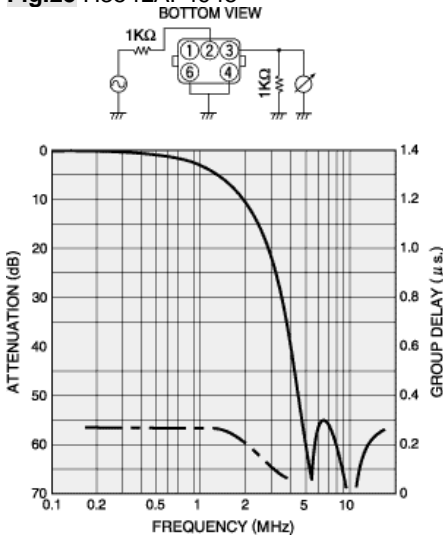
**Fig.23** H354LBI-3284



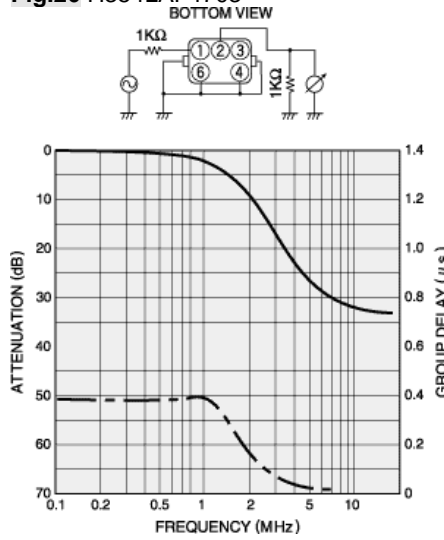
**Fig.24** H354LAI-4435



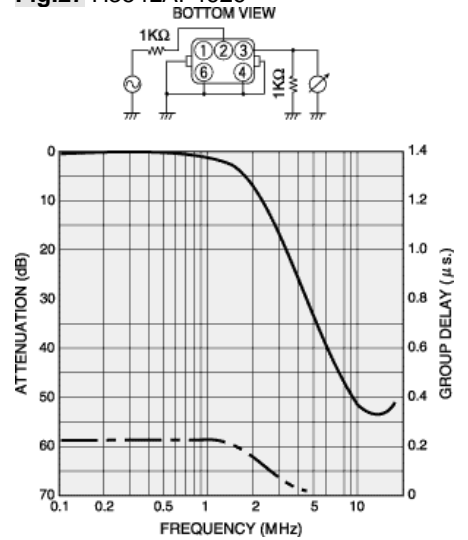
**Fig.25** H354LAI-4945



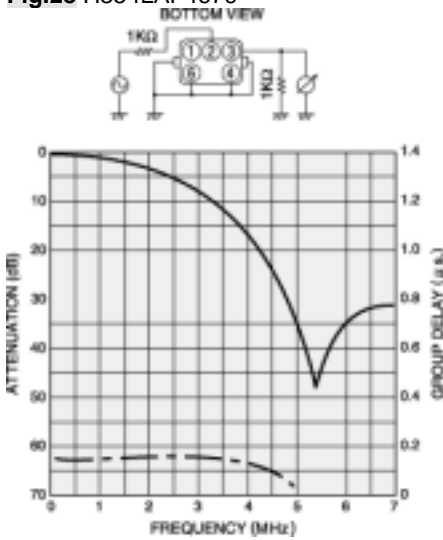
**Fig.26** H354LAI-4703



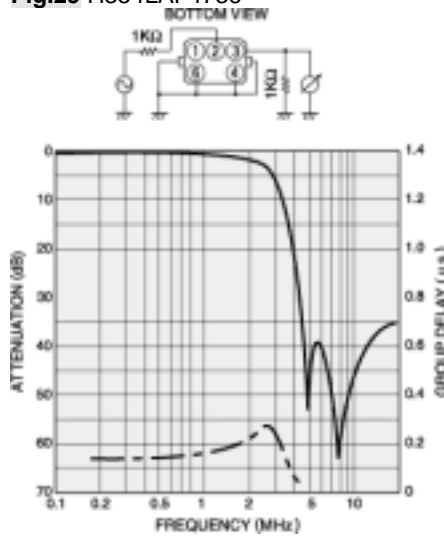
**Fig.27** H354LAI-4626



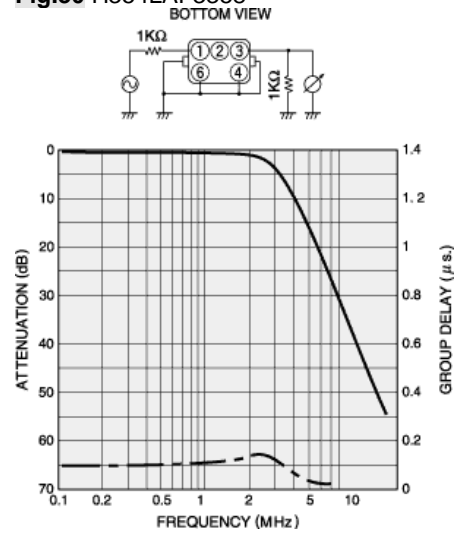
**Fig.28** H354LAI-4679



**Fig.29** H354LAI-4736

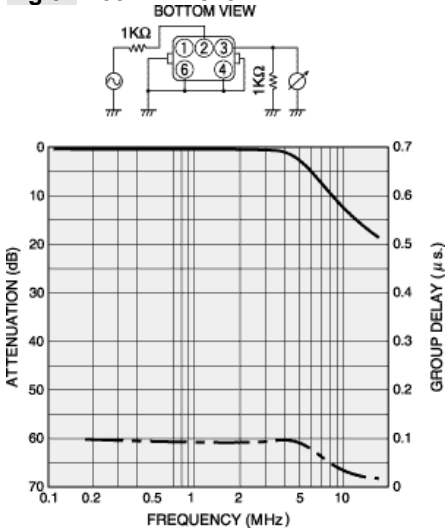


**Fig.30** H354LAI-3358

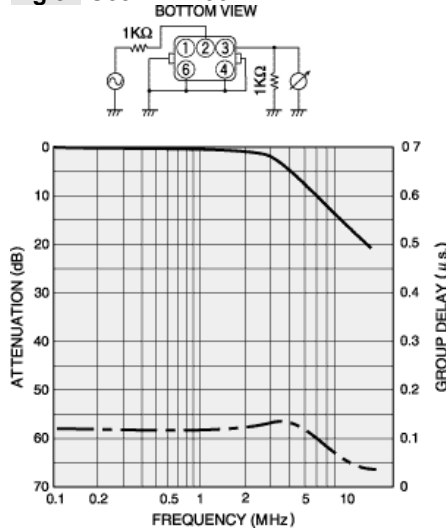


**Typical Characteristics**

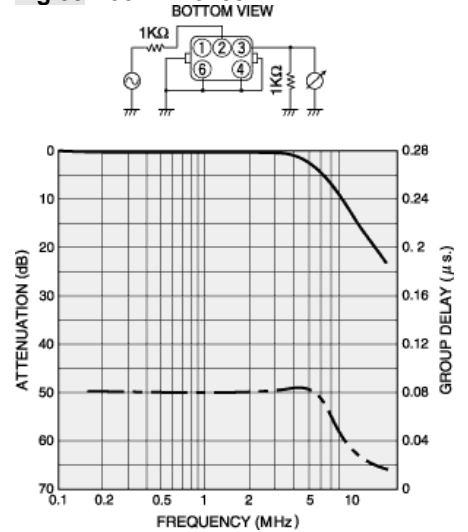
**Fig.31** H354LAI-4875



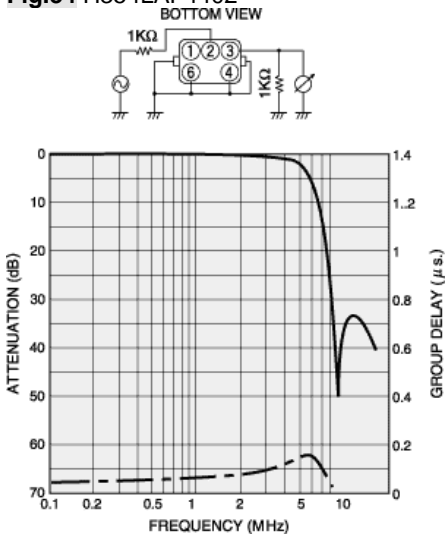
**Fig.32** G354LAI-2997



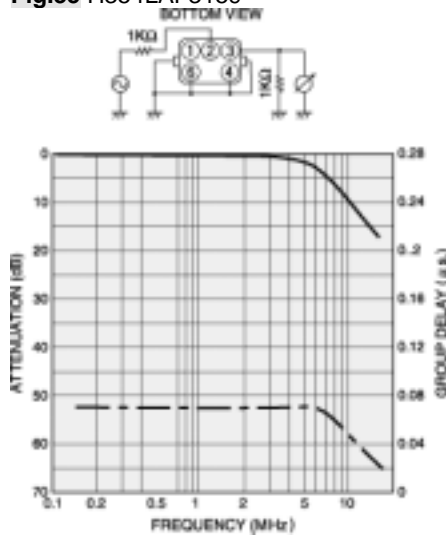
**Fig.33** H354LAI-3158



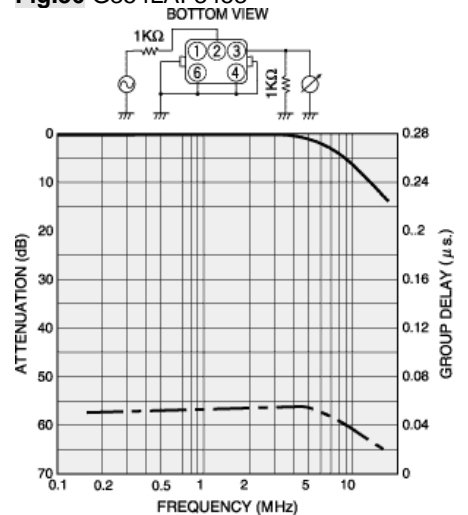
**Fig.34** H354LAI-4402



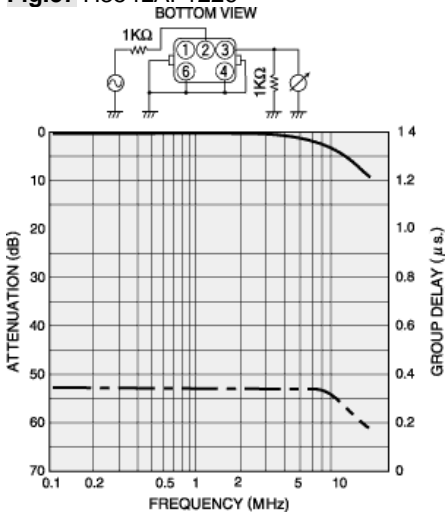
**Fig.35** H354LAI-3159



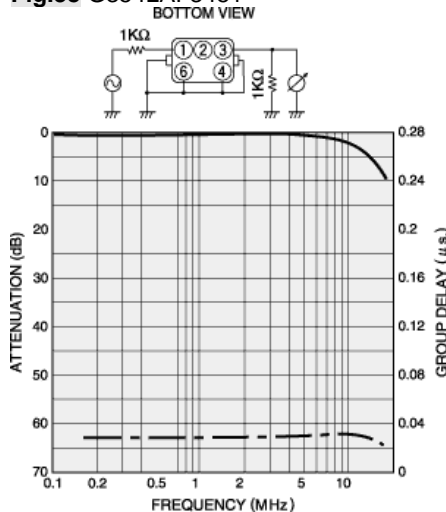
**Fig.36** G354LAI-3453



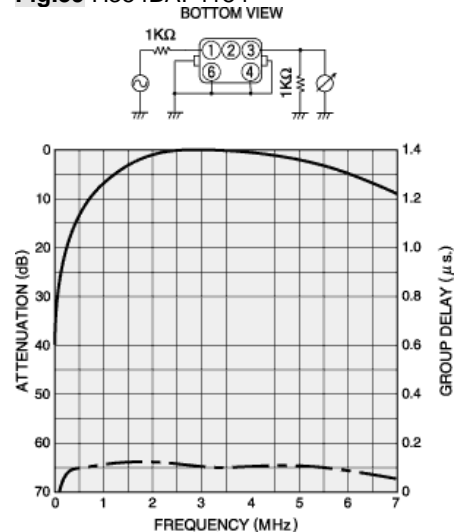
**Fig.37** H354LAI-1226



**Fig.38** G354LAI-3451

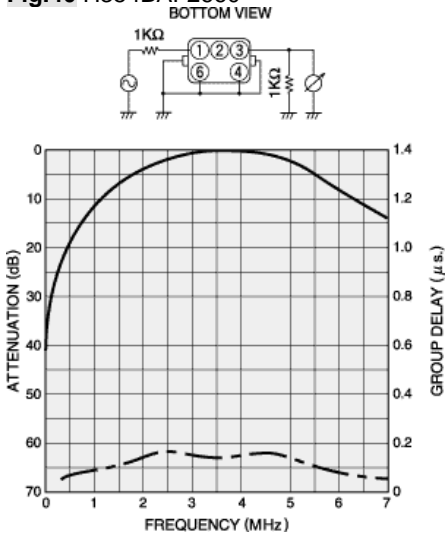


**Fig.39** H354BAI-4184

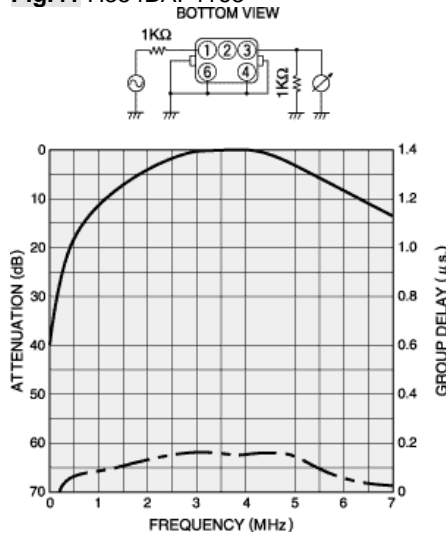


**Typical Characteristics**

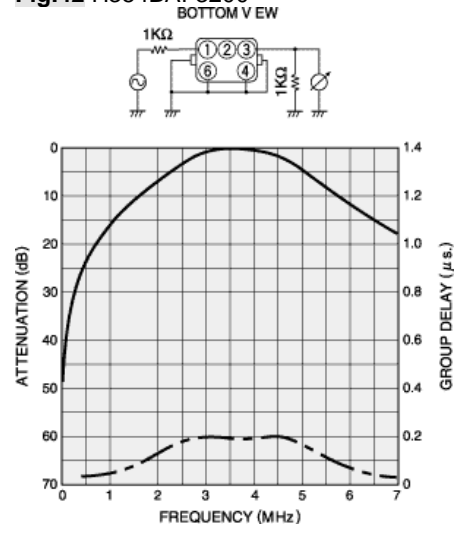
**Fig.40** H354BAI-2660



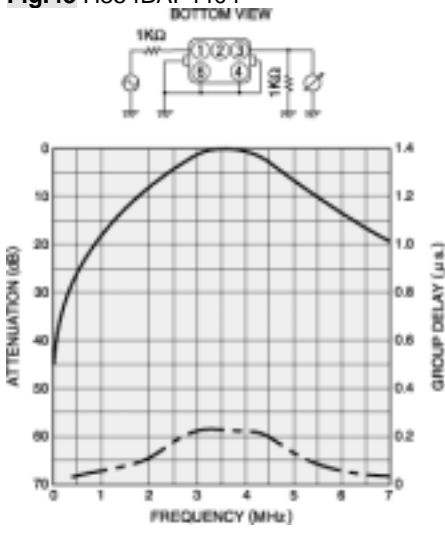
**Fig.41** H354BAI-4163



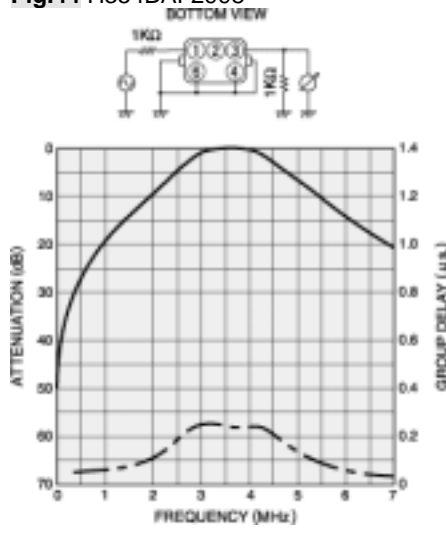
**Fig.42** H354BAI-3200



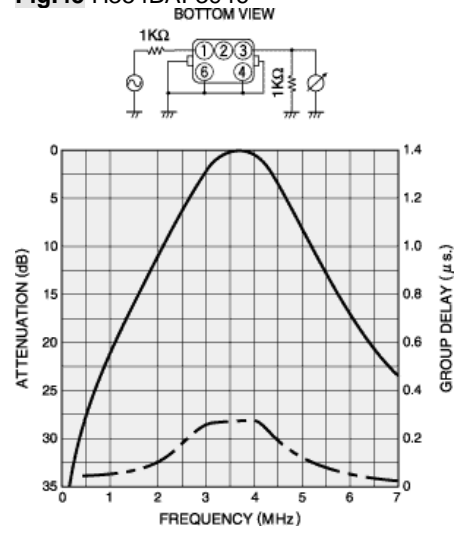
**Fig.43** H354BAI-4404



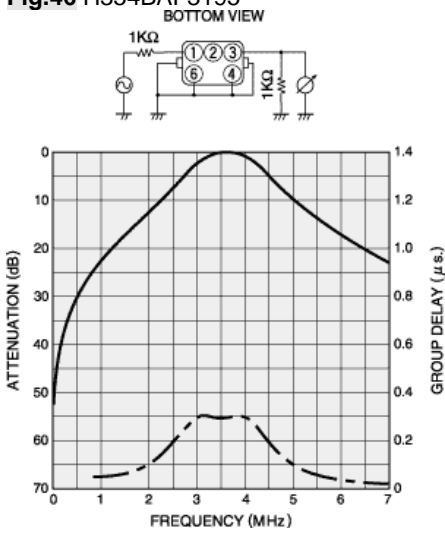
**Fig.44** H354BAI-2998



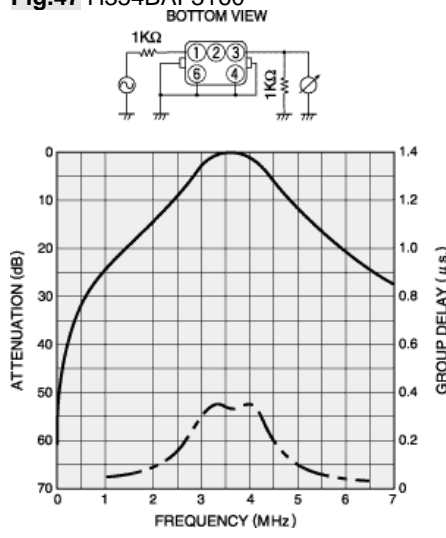
**Fig.45** H354BAI-3946



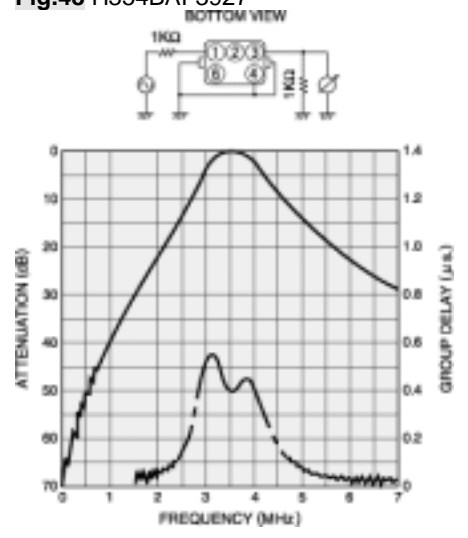
**Fig.46** H354BAI-3195



**Fig.47** H354BAI-3160

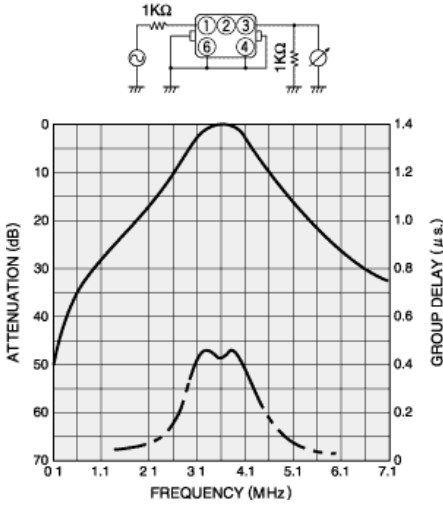


**Fig.48** H354BAI-3927

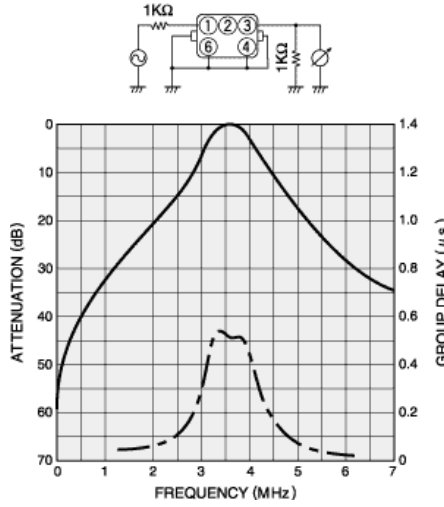


*Typical Characteristics*

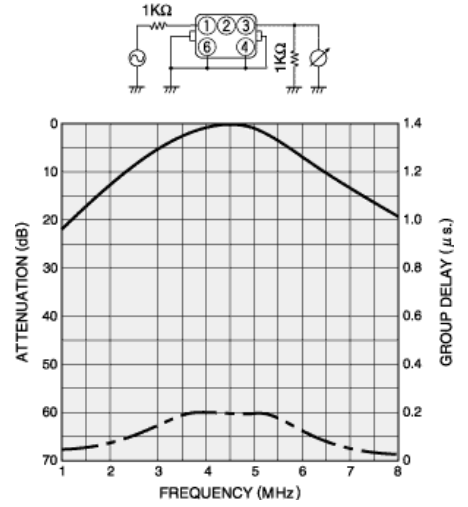
**Fig.49** H354BAI-2771  
BOTTOM VIEW



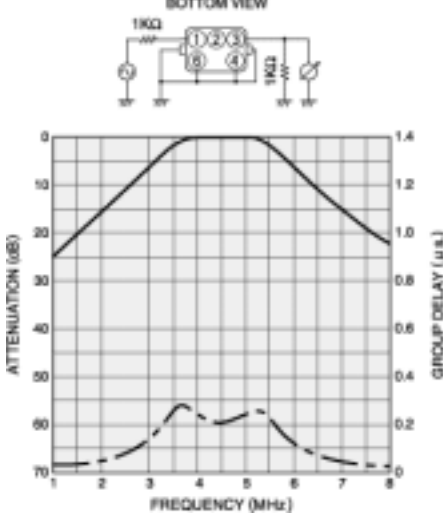
**Fig.50** H354BAI-4601  
BOTTOM VIEW



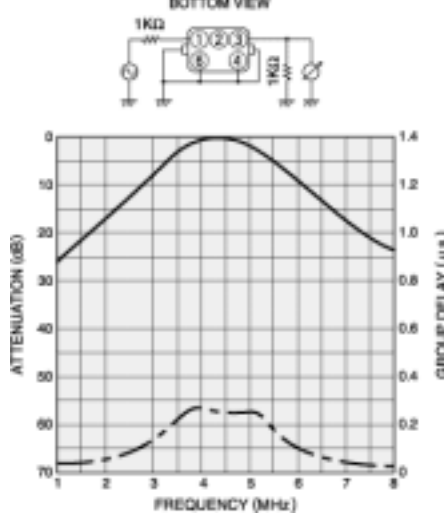
**Fig.51** H354BAI-3287  
BOTTOM VIEW



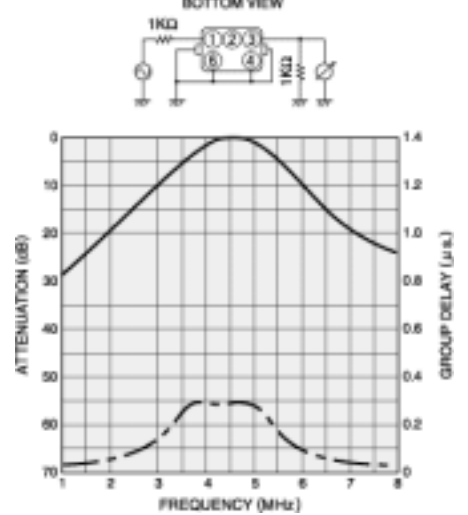
**Fig.52** H354BAI-3989  
BOTTOM VIEW



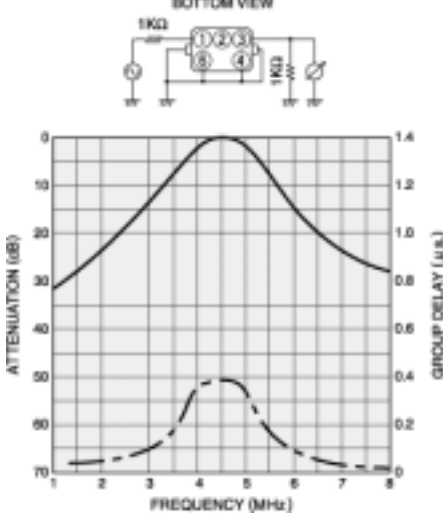
**Fig.53** H354BAI-1146  
BOTTOM VIEW



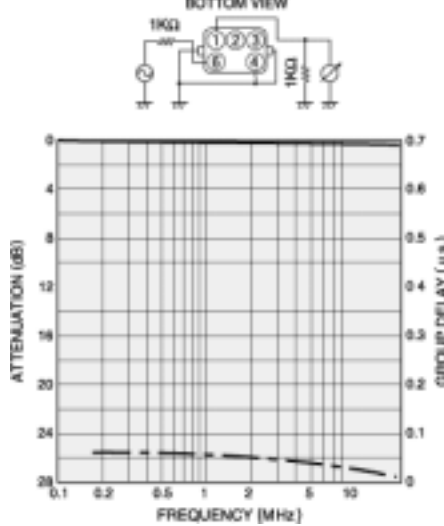
**Fig.54** H354BAI-1748  
BOTTOM VIEW



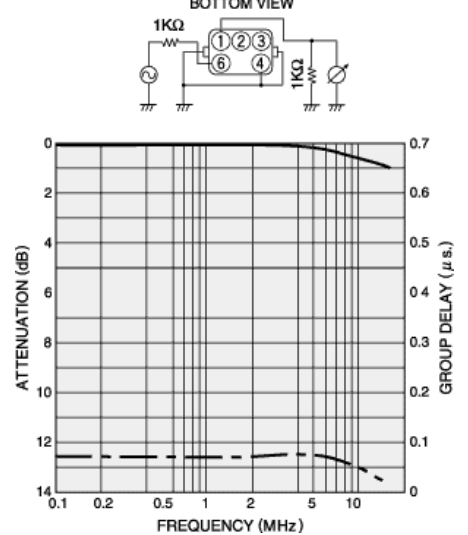
**Fig.55** H354BAI-4214  
BOTTOM VIEW



**Fig.56** G354EAI-4714  
BOTTOM VIEW



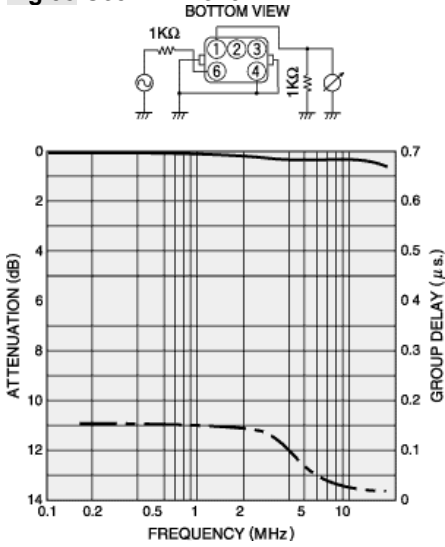
**Fig.57** G354EAI-3049  
BOTTOM VIEW



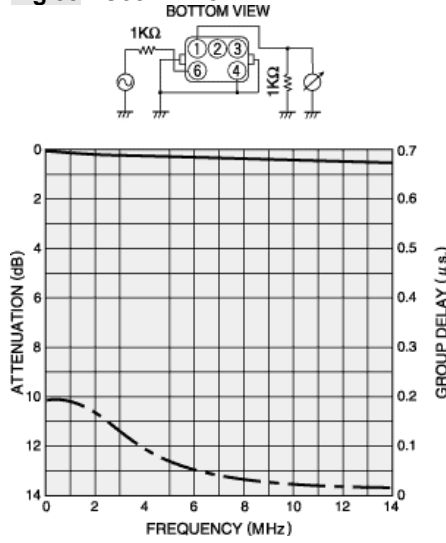


*Typical Characteristics*

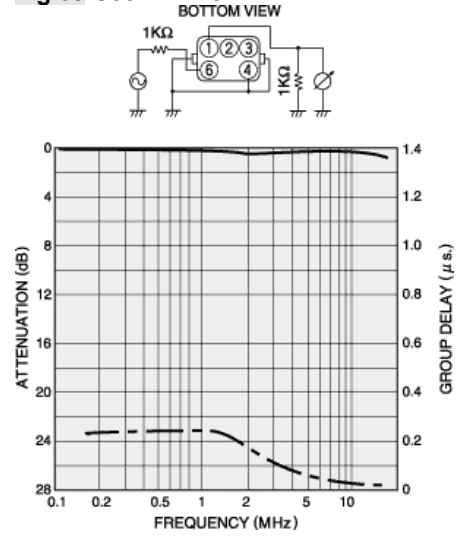
**Fig.58** G354EAI-4346



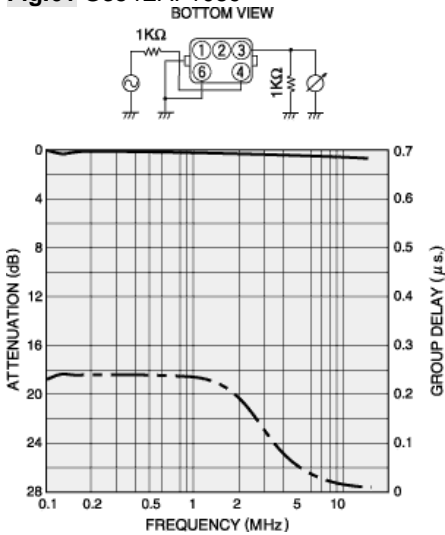
**Fig.59** TG354EAI-5111



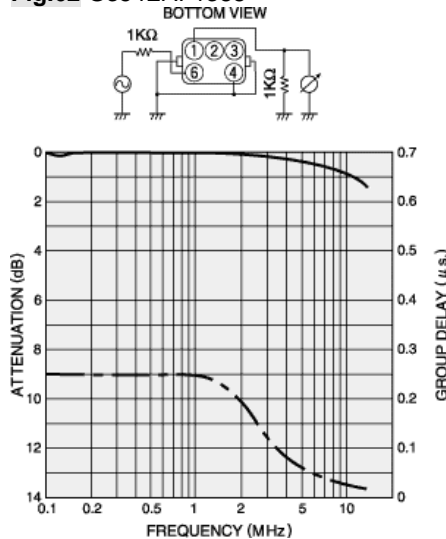
**Fig.60** G354EAI-4947



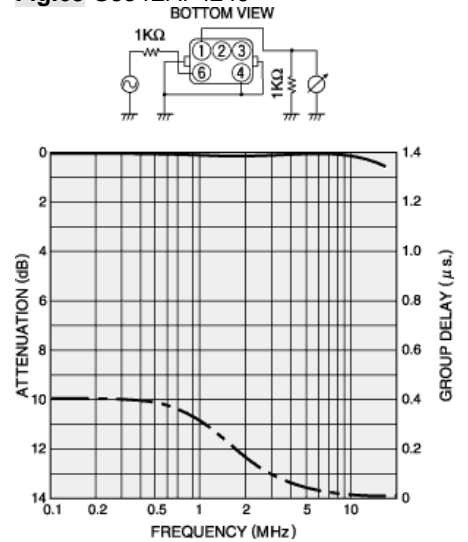
**Fig.61** G354EAI-1089



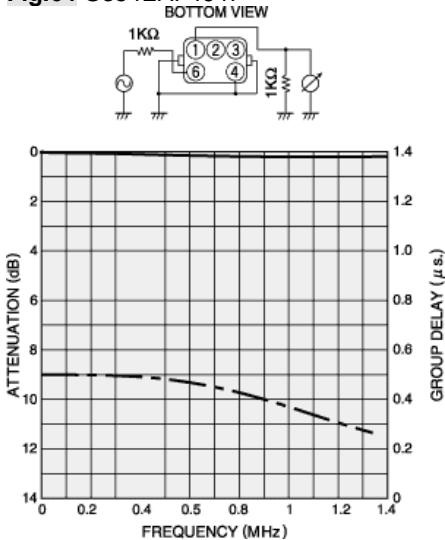
**Fig.62** G354EAI-1388



**Fig.63** G354EAI-4249



**Fig.64** G354EAI-4647



**Fig.65** G354EAI-4648

