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EPCOS (TDK) B39588N3958M100

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# **SAW Components**

Data Sheet N 3958 M







| SAW Components                   | N 3958 M  |
|----------------------------------|-----------|
| IF Filter for Video Applications | 58,75 MHz |

**Data Sheet** 

#### **Standard**

M

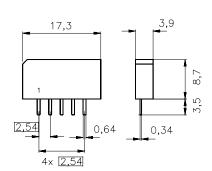
#### **Features**

- TV IF filter with Nyquist slope and sound suppression
- Constant group delay

#### **Terminals**

■ Tinned CuFe alloy

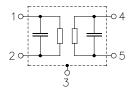
# Plastic package SIP5K



Dimensions in mm, approx. weight 1,0 g

# Pin configuration

- 1 Input
- 2 Input ground
- 3 Chip carrier ground
- 4 Output
- 5 Output



| Туре     | Ordering code     | Marking and package according to | Packing according to |  |  |
|----------|-------------------|----------------------------------|----------------------|--|--|
| N 3958 M | B39588-N3958-M100 | C61157-A1-A15                    | F61074-V8067-Z000    |  |  |

#### **Maximum ratings**

| Operable temperature range | $T_{A}$      | -25/+65 | °C |                       |
|----------------------------|--------------|---------|----|-----------------------|
| Storage temperature range  | $T_{ m stg}$ | -40/+85 | °C |                       |
| DC voltage                 | $V_{DC}$     | 12      | V  | between any terminals |
| AC voltage                 | $V_{\sf pp}$ | 10      | V  | between any terminals |





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#### **Characteristics**

 $\begin{array}{lll} \mbox{Reference temperature:} & T_{\mbox{A}} & = 25 \ (45) \ ^{\circ} \mbox{C} \\ \mbox{Terminating source impedance:} & Z_{\mbox{S}} & = 50 \ \Omega \\ \mbox{Terminating load impedance:} & Z_{\mbox{L}} & = 2 \ k\Omega \ || \ 3 \ \mbox{pF} \end{array}$ 

|                                         |               | min.             | typ.       | max. |          |
|-----------------------------------------|---------------|------------------|------------|------|----------|
| Insertion attenuation                   | α             |                  |            |      |          |
| Reference level for the 57,08 (57,00    | ) MHz         | 11,3             | 12,8       | 14,3 | dB       |
| following data                          |               |                  |            |      |          |
| Relative attenuation                    | $\alpha_{re}$ |                  |            |      |          |
| Picture carrier 58,83 (58,75            |               | 4,8              | 5,8        | 6,8  | dB       |
| Color carrier 55,25 (55,17              | •             | 1,8              | 2,8        | 3,8  | dB       |
| Sound carrier 54,33 (54,25              | •             | 30,0             | 40,0       | _    | dB       |
| Adjacent picture carrier 52,83 (52,75   | •             | 44,0             | 54,0       | _    | dB       |
| Adjacent sound carrier 60,33 (60,25     | •             | 40,0             | 48,0       | _    | dB       |
| Lower sidelobe                          | ,             |                  | ,.         |      |          |
| 45,08 52,83 (45,00 52,75                | i) MHz        | 40,0             | 46,0       | _    | dB       |
| Upper sidelobe                          | ,             |                  |            |      |          |
| 60,33 65,08 (60,25 65,00                | ) MHz         | 36,0             | 42,0       | _    | dB       |
| Reflected wave signal suppression       |               |                  |            |      |          |
| 1,1 μs 6,0 μs after main pulse          |               | 42,0             | 48,0       | _    | dB       |
| (test pulse 250 ns,                     |               |                  |            |      |          |
| carrier frequency 57,08 (57,00) MHz)    |               |                  |            |      |          |
| Feedthrough signal suppression          |               |                  |            |      |          |
| 1,2 μs 1,1 μs before main pulse         |               | 50,0             | 56,0       | _    | dB       |
| (test pulse 250 ns,                     |               |                  |            |      |          |
| carrier frequency 57,08 (57,00) MHz)    |               |                  |            |      |          |
| Group delay ripple (p-p)                | Δτ            | _                | 60         |      | ns       |
| Impedance at 57,08 (57,00) MHz          |               |                  |            |      |          |
| Input: $Z_{IN} = R_{IN} \parallel C$    | IN            | _                | 1,2    8,9 |      | kΩ    pF |
| Output: $Z_{OUT} = R_{OUT} \parallel C$ |               | _                | 0,8    2,7 |      | kΩ    pF |
| Temperature coefficient of frequency    |               | Ç <sub>f</sub> — | -72        | _    | ppm/K    |

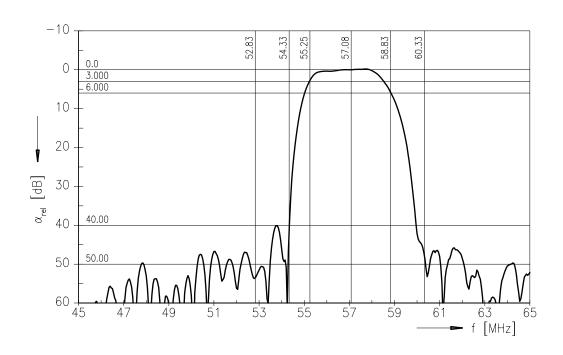


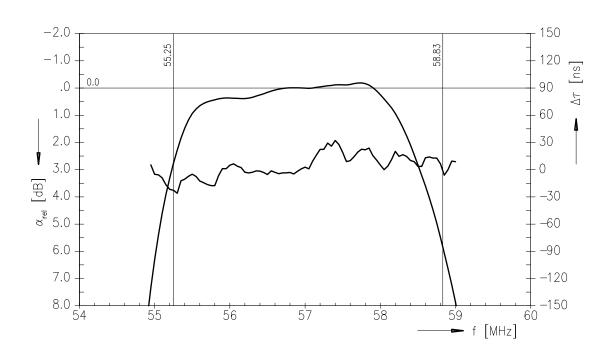


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## Frequency response





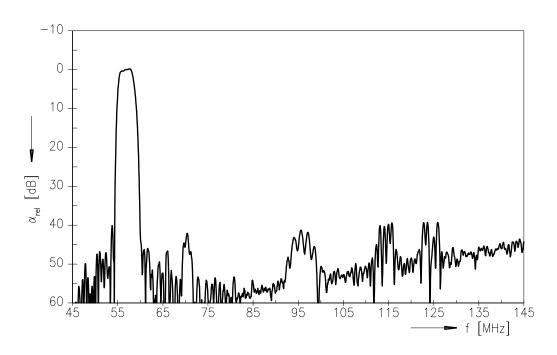




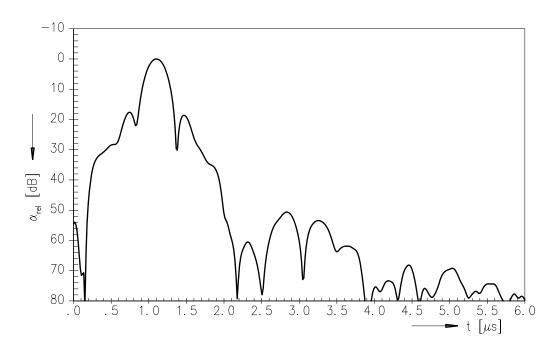
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#### Frequency response



## Time domain response







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