

AVRC 0805 series

Amotech Multilayer Chip EMI and ESD filter



Overview

This product is a multi-functioned filter for EMI/ESD protection with C-R-C structure of type Π (π), and mainly uses it to interrupt EMI noise at the end of camera and LCD, and uses to protect ESD of high voltage. Especially, it shows its excellent reduction characteristics at the 800 ~ 3,000GHz band in the receiving base band of terminal.

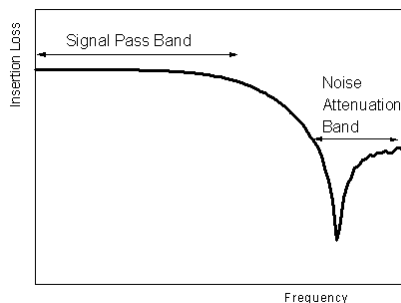


Fig 1 General characteristics of EMI & ESD filter

Features

- R-C type 4 channels array filter
- 0508 size
- IEC 61000-4-2 (ESD) Level #4, MSL Level #1
- Multilayer laminated structure

Applications

- Possible to apply variously for elimination of high frequency noise, and protection of ESD.
- Intercept noise generating from control line and data line of LCD & Camera module.
- Interrupt ESD flowing into the LCD and camera module.

Model Description

AVRC	5	S	05	Q	050	100R
(1)	(2)	(3)	(4)	(5)	(6)	(7)

- (1) Series name : "AVRC" - R-C Type EMI & ESD filter
- (2) Maximum continuous working voltage (Vdc) : "5" - 5V, "14" - 14V, "18" - 18V
- (3) Varistor voltage tolerance : "S" - special order
- (4) Chip Size : "05" - 0508 (1.2 x 2.0 mm)
- (5) Configuration : "Q" - Quad array (4 elements), "D" - Dual array (2 elements)
- (6) Capacitance : "050" - C1+C2 = 50 pF, "030" - C1+C2 = 30pF
Typical Resistance : "010R" - 10 ± 3 Ω, "050R" - 50 ± 15 Ω,
- (7) "100R" - 100 ± 30 Ω, "200R" - 200 ± 60 Ω,
"400R" - 400 ± 120 Ω

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Electrical characteristics

Part No.	Vdc ⁽¹⁾	Varistor voltage (Vn) @1mA DC	Rdc R series between I/O ⁽²⁾	Rdc tolerance	Cp (@ 1MHz, V _{rms} =0.5V) C1+C2	Cp tolerance	IR (@3V DC)	Insertion Loss (@1MHz)	Cut-off Frequency (-3dB)	Minimum -20dB ATT. Band
	(V)	(V)	(Ω)	(%)	(pF)		(MΩ)	(dB)	(MHz)	(MHz)
AVRC 5S 05Q 050 050R	5.5	14±4	50	±30	25+25	±30 (%)	> 10	-4.3~-2.6	80	400~3000
AVRC 5S 05Q 050 100R	5.5	14±4	100	±30	25+25	±30 (%)	> 10	-7.2~-4.6	80	400~3000
AVRC 5S 05Q 100 050R	5.5	14±4	50	±30	50+50	±30	> 10	-4.3~-2.6	40	250~3000
AVRC 5S 05Q 100 100R	5.5	14±4	100	±30	50+50	±30 (%)	> 10	-7.2~-4.6	40	200~3000
AVRC 14S 05Q 030 050R	14	23±5	50	±30	15 +15	±30(%)	> 10	-4.3~-2.6	150	750~3000
AVRC 14S 05Q 030 100R	14	23±5	100	±30	15+15	±30 (%)	> 10	-7.2~-4.6	150	700~3000
AVRC 18S 05Q 007 050R	18	60 ~150	50	±30	3.5+3.5	3 ~ 7 (pF)	> 10	-4.3~-2.6	1000	3500~5000
AVRC 18S 05Q 007 100R	18	105±45	100	±30	3.5+3.5	3 ~ 7 (pF)	> 10	-7.2~-4.6	1000	2800~5000
AVRC 18S 05Q 015 010R	18	30±6	10	±30	7.5+7.5	±30 (%)	> 10	-1.0~-0.5	700.	1900~5000
AVRC 18S 05Q 015 050R	18	30±6	50	±30	7.5+7.5	±30 (%)	> 10	-4.3~-2.6	450	1500~3000
AVRC 18S 05Q 015 100R	18	30±6	100	±30	7.5+7.5	±30 (%)	> 10	-7.2~-4.6	400	1100~3000
AVRC 18S 05Q 030 050R	18	30±6	50	±30	15+15	±30(%)	> 10	-4.3~-2.6	150 max	750~3000

(1) Maximum continuous DC working voltage

(2) Series resistance between input and output

Equivalent Circuit

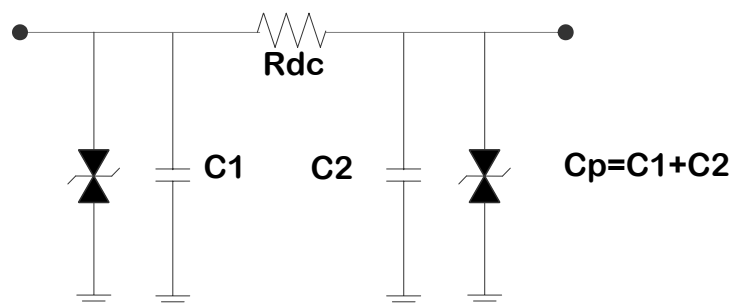


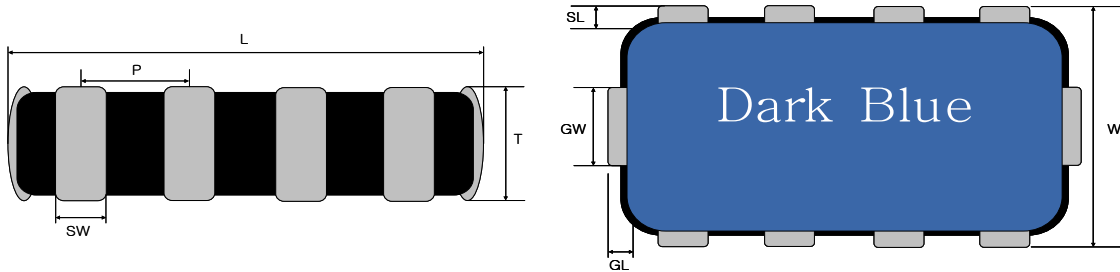
Fig.2 Equivalent Circuit

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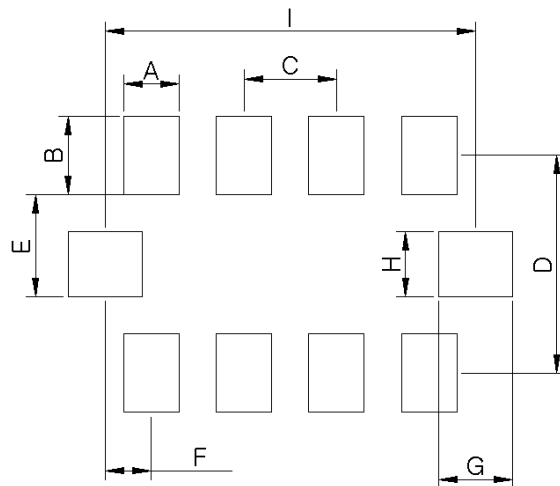
Appearance



(Unit : mm)

	L	W	T	GL	GW	SL	SW	P
Size	2.05±0.10	1.25±0.10	0.55±0.10	0.25±0.10	0.30±0.10	0.25±0.10	0.25±0.10	0.50±0.10

Recommended Land pattern (Typical Dimensions)



(Unit : mm)

A	B	C	D	E	F	G	H	I
0.3	0.42	0.5	1.17	0.55	0.25	0.4	0.35	2

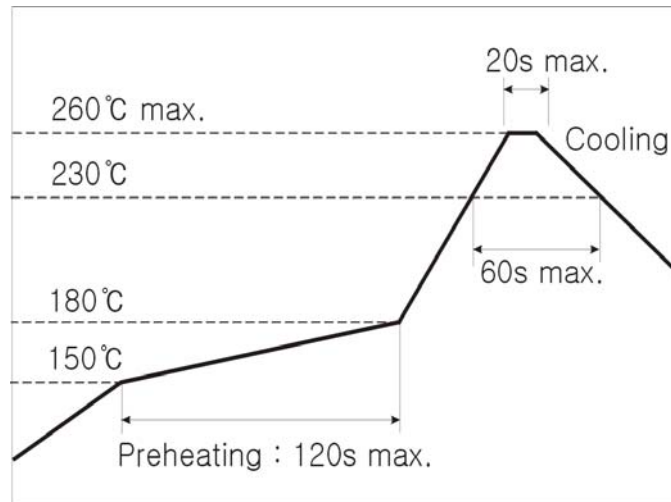
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Recommended Soldering Profile

- Pb Free Solder Paste : Sn/Ag/ Cu (96.5 / 3.0 / 0.5)



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EMI Characteristics (Typical data)

