

Single phase 250Vac 0.5 to 6A EMC Filters

https://product.tdk.com/en/search/emc/emc/power-line/tec_data/nf_rseg
https://product.tdk.com/en/search/emc/emc/power-line/tec_data/nf_rsag
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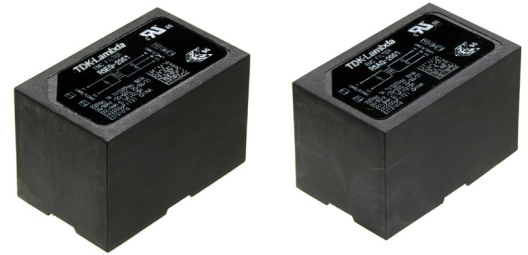
Industrial

Test

LED

COMM

Broadcast



The RSEG and RSAG single-phase EMC filters are enclosed in a compact plastic case and can be mounted directly on a printed circuit board. This enables the filter to be placed closer to noise generating components and can reduce interference radiating from internal system wiring to the AC supply. The filters are lightweight making them ideal for portable equipment. They are rated for 250Vac with current ratings of 0.5 to 6A, enabling the best attenuation with low current requirements. The RSEG series utilize TDK's ferrite core technology for noise attenuation. The RSAG series uses TDK's amorphous core material to provide both pulse and noise attenuation. Amorphous materials offer a higher resistance to saturation from high voltage pulses and greater long term reliability than semiconductor clamps.

Features	Benefits
• Compact Size	• Less Board Space Utilized
• 0.5 to 6A Current Ratings	• Optimizes the Attenuation for Lower Current Requirements
• Lightweight	• Ideal for Portable Equipment
• Amorphous Core Technology (RSAG series)	• Reduces High Voltage Pulse Core Saturation
• Safety Certified	• Global Use

Model Selector					
Model	Rated Current (A)	HV Pulse Protection	Maximum DC Resistance (mΩ)	Attenuation frequency range (MHz) at 20dB	
				Common Mode	Differential Mode
RSEG-20R5	0.5	N	400	0.3 to 10	1.5 to 30
RSAG-20R5	0.5	Y	400	0.5 to 10	1.5 to 30
RSEG-2001	1	N	350	0.3 to 10	1.5 to 30
RSAG-2001	1	Y	350	0.5 to 10	1.5 to 30
RSEG-2002	2	N	310	0.5 to 20	1.5 to 30
RSAG-2002	2	Y	310	1 to 20	1.5 to 30
RSEG-2003	3	N	150	0.5 to 20	1.5 to 30
RSAG-2003	3	Y	150	1 to 20	1.5 to 30
RSEG-2004	4	N	130	1 to 20	1.5 to 30
RSAG-2004	4	Y	130	2 to 20	1.5 to 30
RSEG-2006	6	N	100	1 to 20	1.5 to 30
RSAG-2006	6	Y	100	2 to 20	1.5 to 30

RSAG	-	2	0R5
Series Name RSAG RSEG		Rated Voltage 2 = 250Vac	Rated Current 0R5 = 0.5A 001 = 1A 006 = 6A

Related Products

Type	Current Rating (A)	Series	Low Leakage	Faston on Terminals	Wire Leads	DIN Rail Mount	Fused	Discharge Resistor	Metal Case
General purpose with faston terminals	6	RSEC							
General purpose	0.5 - 6	RSEL	Y	Y	Y				Y
HV pulse protection	0.5 - 6	RSAL	Y	Y	Y				
Power Entry Module with line filter	3, 6, 10	RPE	Y				Y	Y	
Power Entry Module with line filter, HV Pulse	3, 6, 10	RPA	Y					Y	
Compact size with screw terminals	6 - 30	RSEV				DIN-RSEV*			
Multipurpose	3 - 300	RSEN	Y (Up to 30A)			Y (Up to 30A)			
Multipurpose with HV pulse protection	3 - 60	RSAN	Y (Up to 30A)			Y (Up to 30A)			
High attenuation	3 - 300	RSHN	Y (Up to 30A)			Y (Up to 30A)			
High attenuation with pulse protection	3 - 300	RSMN	Y (Up to 30A)			Y (Up to 30A)			
Wide band, high attenuation	6 - 30	RSKN							

* Separate mounting bracket

[Click here for TDK-Lambda three phase filters.](#)

Specification

Model		
Input		
Rated Voltage	Vac/Vdc	250 (Safety certified for AC input only)
Input Frequency	Hz	47 - 63
Leakage Current	mA	<0.75 at 250Vac, 60Hz
Safety Certifications and Markings	-	UL1283, CSA C22.2 No.8 (cUL), EN60939-1/-2 (ENEC14), conforms to RoHS Directive
Environmental		
Operating Temperature	°C	-25 to +85, derating above 55. See derating curve below
Storage Temperature	°C	-25 to +85
Humidity (non condensing)	%RH	Operating: 15 - 85, Storage 5 - 85
Cooling	-	Convection
Withstand Voltage	Vac	1,500 input to earth
Isolation Resistance (For 1 minute)	MΩ	>100 at 500Vdc
Vibration	-	10-55Hz Amplitude 1.5mm, Sweep for 1 min. X, Y and Z directions for 2 hours each
Other		
Weight (Typ)	g	0.5A - 2A: 14, 3A - 6A: 25
Size (LxWxH)	mm	32 x 20 x 21
Size (LxWxH)	Inches	1.26 x 0.79 x 0.79
Connectors		0.6mm pins. See outline drawing
Case Material	-	Flame Retardant Plastic (UL94 V-0)
MTBF - MIL-HDBK-217F NOTICE2 GF	Hours	13,583,265
Warranty	Years	5

Notes

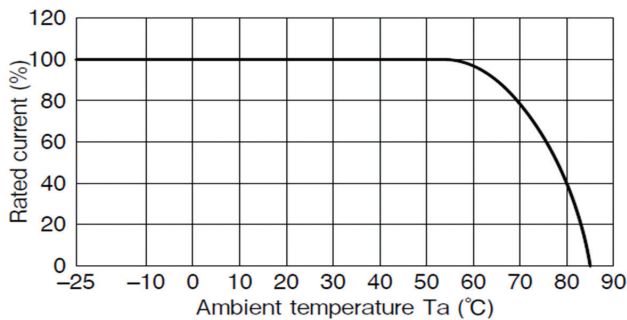
See website for detailed specifications, test methods and installation manual.

[RSEG technical files](#)

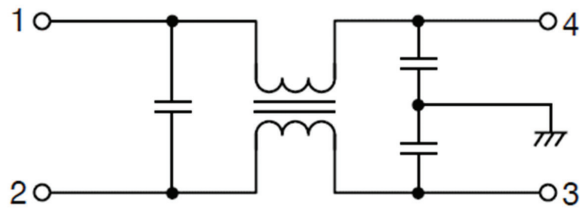
[RSAG technical files](#)

Mechanical Specification

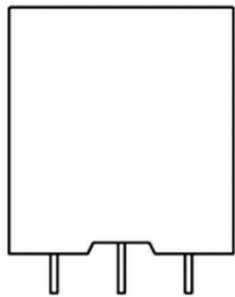
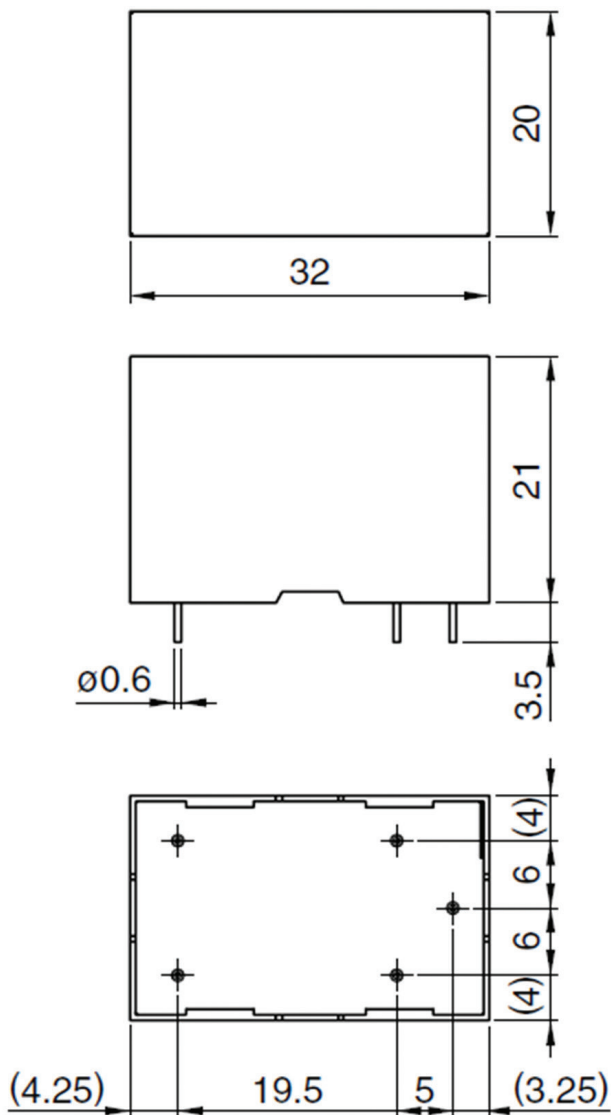
Derating Curve (All models)



Schematic



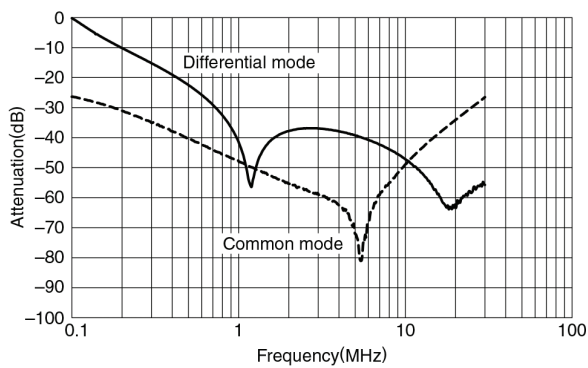
Outline Drawing & Pin Out



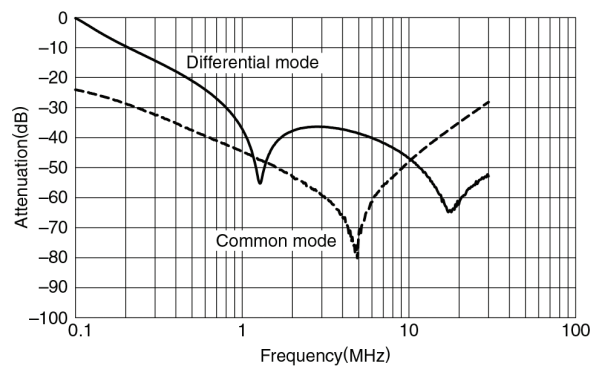
Dimensions in mm

RSEG Attenuation vs. Frequency

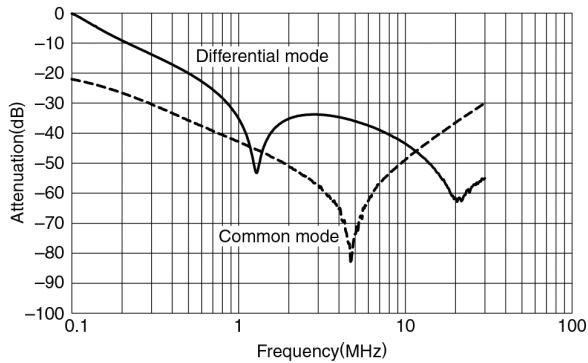
RSEG-20R5



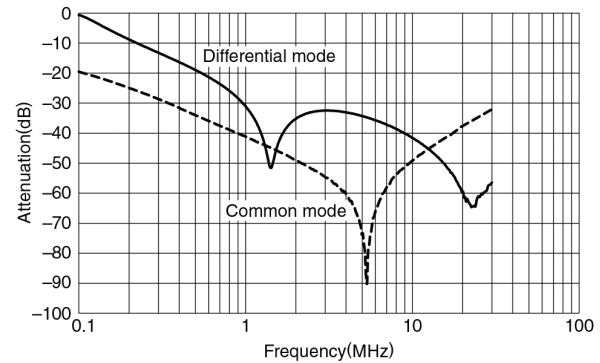
RSEG-2001



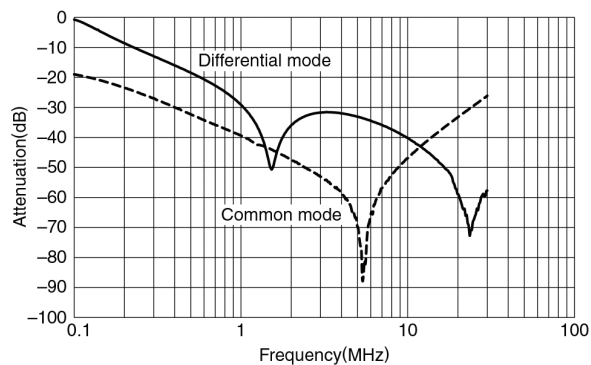
RSEG-2002



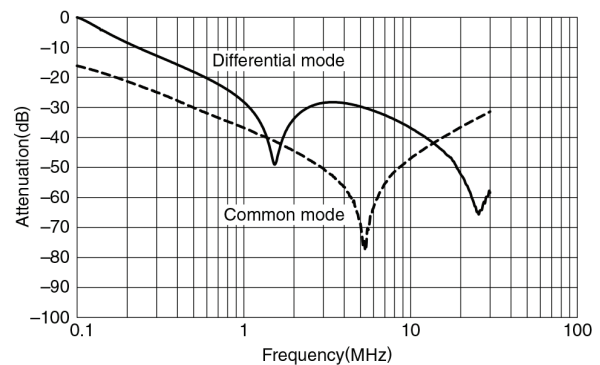
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RSEG-2004

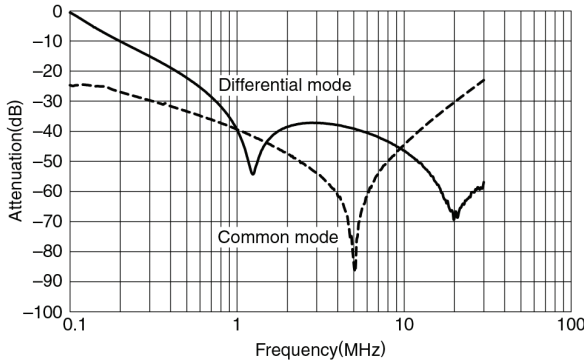


RSEG-2006

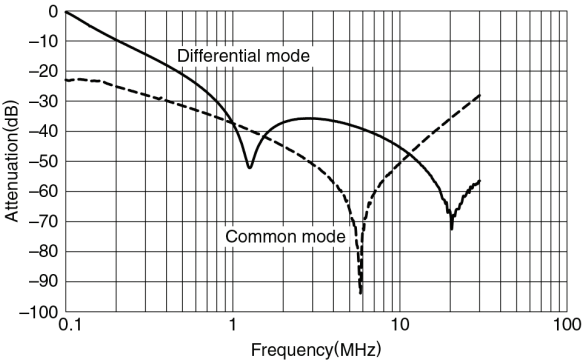


RSAG Attenuation vs. Frequency

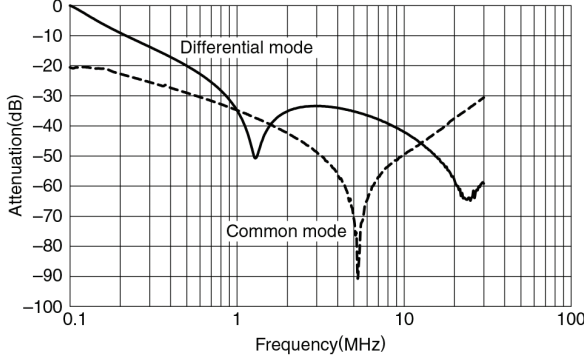
RSAG-20R5



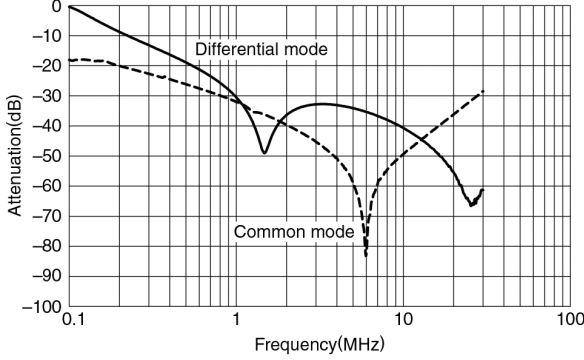
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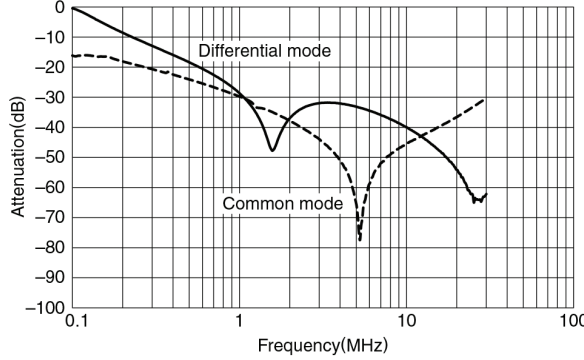
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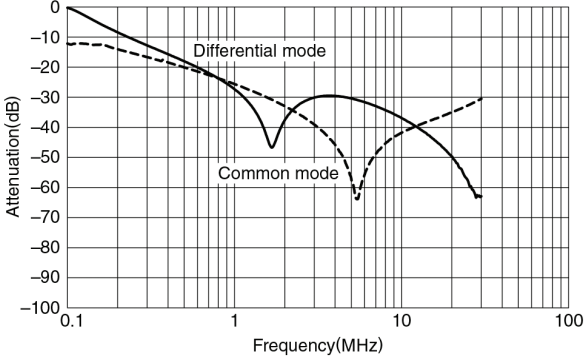
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RSAG-2004

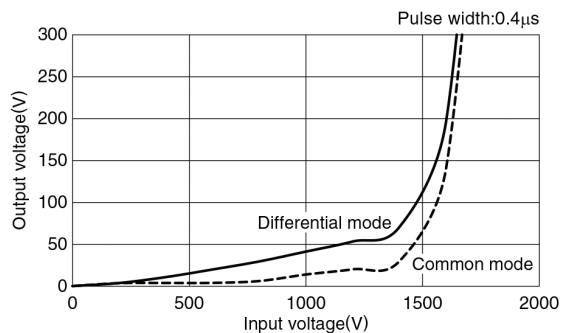


RSAG-2006

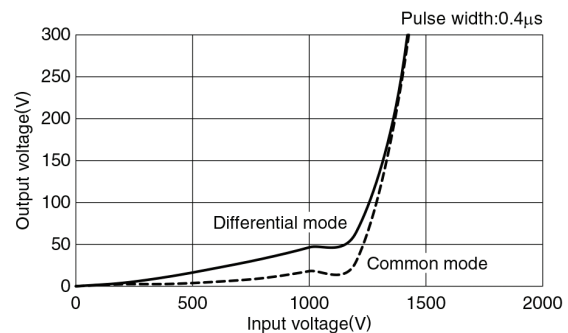


RSAG Pulse Attenuation Characteristics

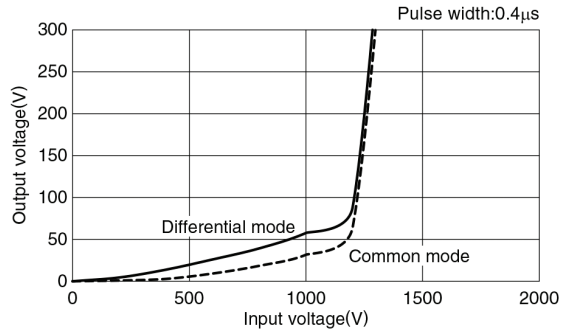
RSAG-20R5



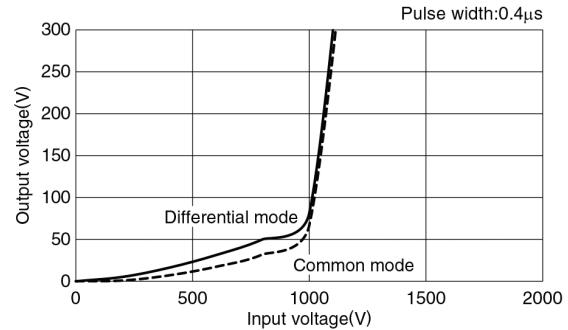
RSAG-2001



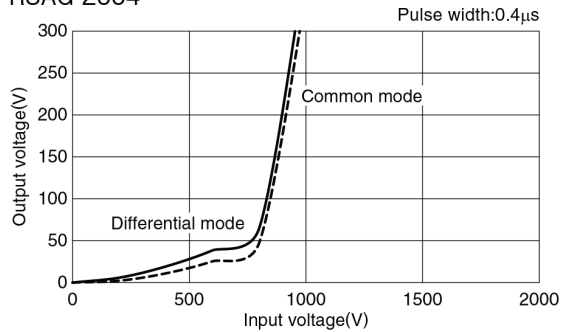
RSAG-2002



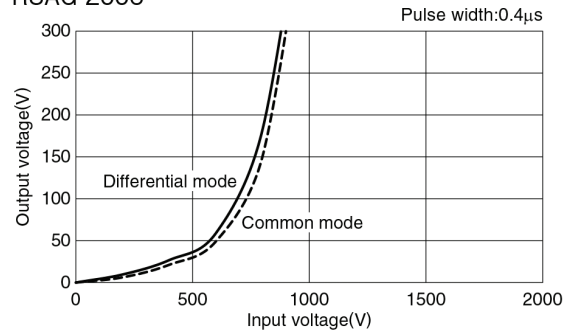
RSAG-2003



RSAG-2004



RSAG-2006





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