

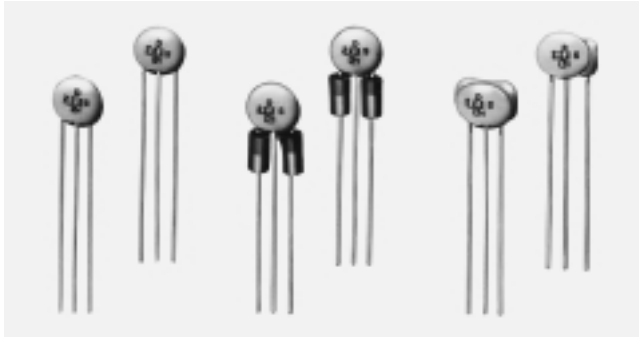
EMI LEADED FILTERS

EMI SUPPRESSION FILTERS

DISC-TYPE

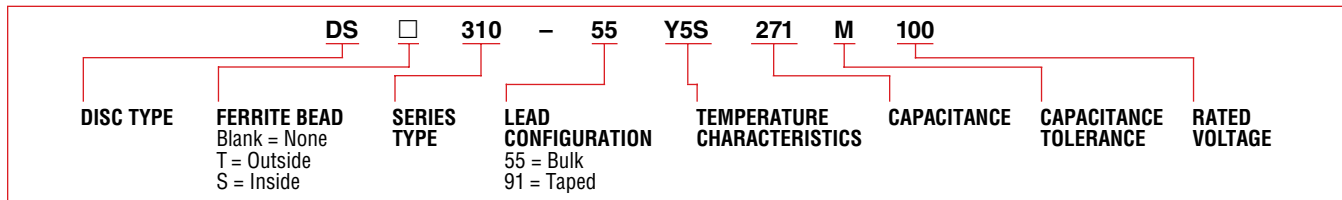


DS310/H, DST310/H & DSS310/H Series



Disc-type EMIFIL® DS310, DST310 and DSS310 are T-type EMI suppression filters. The disc-type EMIFIL increases the self-resonant frequency of the capacitor by attaching two lead wires to one of the electrodes of the capacitor and increases the insertion loss by adding inductance to the lead in the DST and DSS types only. Frequencies to be suppressed can be selected by choosing the capacitance. They are also recommended for use as by-pass capacitors.

PART NUMBERING SYSTEM



SPECIFICATIONS

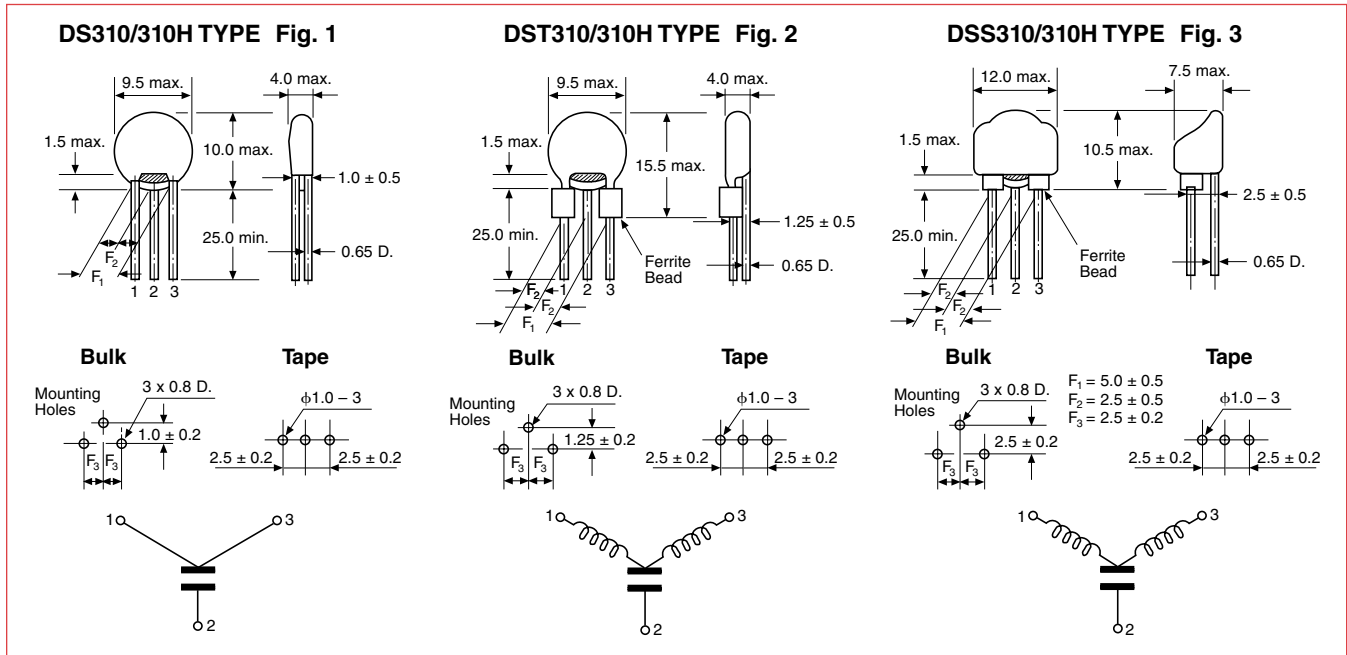
Part Number	Capacitance	Capacitor		Ferrite Beads	Dimensions	Insertion Loss
		W.V.	T.C. -25°C to +85°C			
FOR GENERAL APPLICATIONS						
*DS310-55Y5S271M100	270pF ± 20%	100V	±22%	None	Fig. 1	Fig. 4
*DS310-55Y5S222M100	2200pF ± 20%	100V				
*DS310-55Y5S223S50	22000pF + 50%, -20%	50V				
*DS310-55Y5S104M16	100000pF ± 20%	16V				
*DST310-55Y5S271M100	270pF ± 20%	100V	±22%	External	Fig. 2	Fig. 5
*DST310-55Y5S222M100	2200pF ± 20%	100V				
*DST310-55Y5S223S50	22000pF + 50%, -20%	50V				
*DSS310-55Y5S220M100	22pF ± 20%	100V	±22%	Internal	Fig. 3	Fig. 6
*DSS310-55Y5S470M100	47pF ± 20%	100V				
*DSS310-55Y5S101M100	100pF ± 20%	100V				
*DSS310-55Y5S271M100	270pF ± 20%	100V				
*DSS310-55Y5S222M100	2200pF ± 20%	100V				
*DSS310-55Y5S223S50	22000pF + 50%, -20%	50V				
FOR AUDIO CIRCUITS (LOW DISTORTION TYPE)						
*DSS310-55BL222M100	2200pF ± 20%	100V	±10%	Internally	Fig. 3	Fig. 9
*DSS310-55DL223S50	22000pF + 50%, -20%	50V	+20%, -30%			

Part Number	Capacitance	T.C.		Ferrite Beads	Dimensions*	Insertion Loss
		-25°C to +85°C	-40°C to +105°C			
FOR HIGH TEMPERATURE APPLICATIONS						
*DS310H-55B220M250	22pF ± 20%	±10%	±20%	None	Fig. 1	Fig. 7
*DST310H-55B220M250				External	Fig. 2	Fig. 8
*DSS310H-55B220M250				Internal	Fig. 3	Fig. 10
*DS310H-55B101M250	100pF ± 20%			None	Fig. 1	Fig. 7
*DST310H-55B101M250				External	Fig. 2	Fig. 8
*DSS310H-55B101M250				Internal	Fig. 3	Fig. 10
*DS310H-55B271M250	270pF ± 20%	None	Fig. 1	Fig. 7		
*DST310H-55B271M250		External	Fig. 2	Fig. 8		
*DSS310H-55B271M250		Internal	Fig. 3	Fig. 10		
*DS310H-55B222M250	2200pF ± 20%	±30%	±30%	None	Fig. 1	Fig. 7
*DST310H-55B222M250				External	Fig. 2	Fig. 8
*DSS310H-55B222M250				Internal	Fig. 3	Fig. 10

*Note: DS□310 Series Footprint for Bulk and Tape & Reel are different. Consult your local Murata Electronics Sales Office. All DS□310H units are rated at 7A max. and 250VDC. Current rating is 7Amps for bulk packaged units, 6Amps for tape and reel.

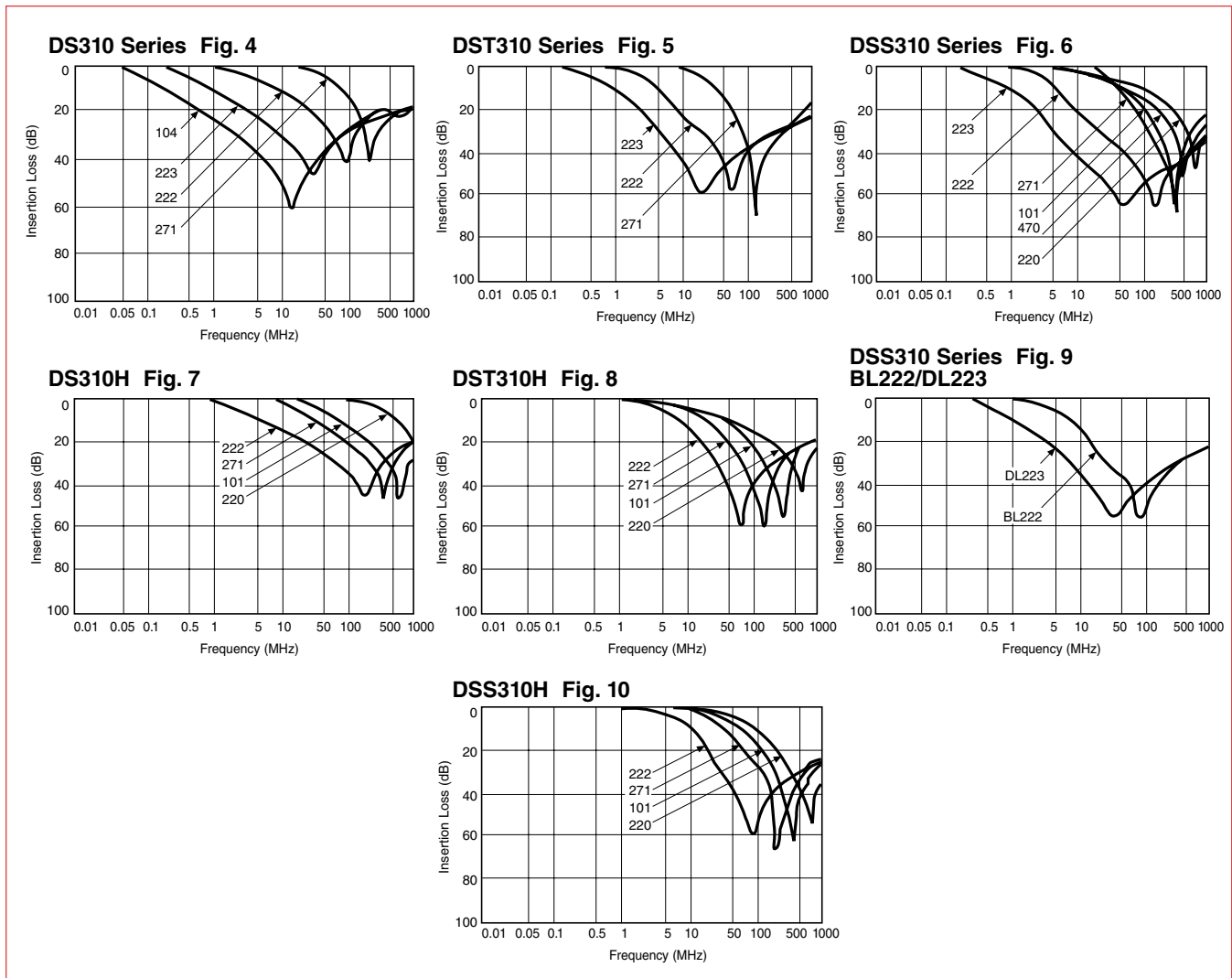
*Available as standard through authorized Murata Electronics Distributors.

DIMENSIONS: mm (See Note)



TYPICAL INSERTION LOSS CHARACTERISTICS

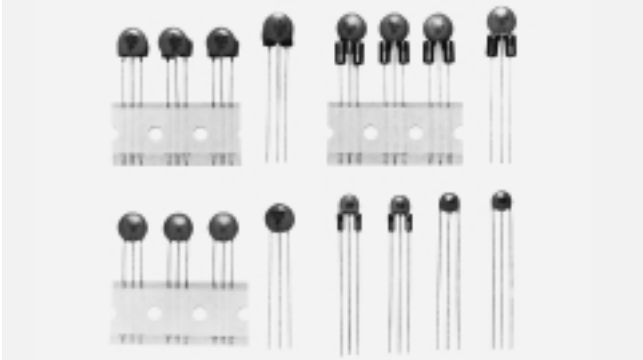
Note: DS□310 Series Footprint for Bulk and Tape are different. Consult your local Murata Electronics Sales Office for details.



EMI LEADED FILTERS EMI SUPPRESSION FILTERS TAPE & REEL



DS□306, DS□310/310H Series



PART NUMBERING, DS306 & DSS310 SERIES

DST 310 - 55 Y5S 271 M 100
 T = Ferrite Bead Outside Series 55 = Bulk Pkg. Temp. Cap. Tolerance Rated
 S = Ferrite Bead Inside 9□ = Tape Char. Value Voltage
 (See Chart)

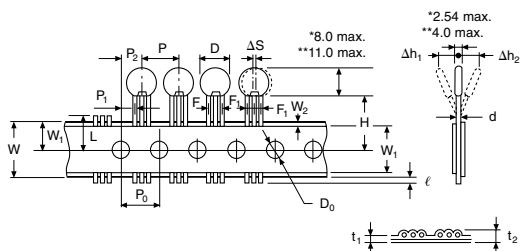
TAPING CODES

Code		H
Straight Leads	Crimped Leads	Tape & Reel
91	—	20.0
92	421	16.5
93	431	18.5

*Three types of H dimensions (lead length) are available for various types of insertion machines.

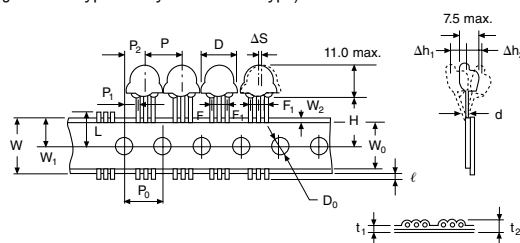
TAPE DIMENSIONS: mm

DS306-91 Type DS310-91 Type

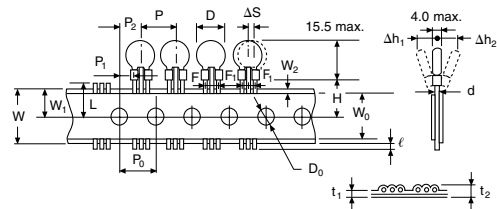


DSS310-91 Type

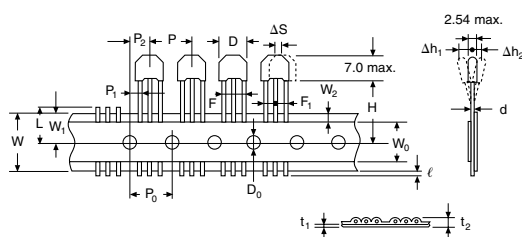
(Taping for DSS type is only DSS310-91 Type)



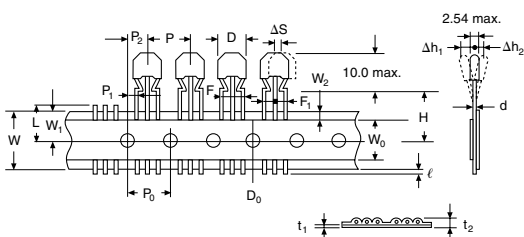
DST310-91 Type



DSS306-91 Type



DSS306-431 Type



Item	Code	Dimensions: mm	Remarks
Taping Pitch	P	12.7	Product Inclination ΔS Determines Tolerance
Guide Pitch	P ₀	12.7 ± 0.2	
Hole Center to Lead	P ₁	3.85 ± 0.7	
Hole Center to Component Center	P ₂	6.35 ± 1.3	Shift in Tape in Direction of Feed
Diameter of Body	D	7.0 [9.5]	DS max. [].....
		8.0 [9.5]	DST max. DS□310
		8.0 [12]	DSS max. Series
Deviation of Body Center	ΔS	0 ± 1.0	
Width of Base Tape	W	18.0 ± 0.5	
Feed Hole Position to Capacitor Lead	W ₁	9.0 ⁺⁰ _{-0.5}	Tape Widthwise Shift
Protrusion Length	ℓ	+0.5 to -1.0	
Diameter of Feed Hole	D ₀	4.0 ± 0.1	
Diameter of Lead	d	0.6	
Total Thickness of Tape	t ₁	0.7 ± 0.2	Includes Thickness of Bonding Tape
	t ₂	1.5 max.	
Deviation Across Tape	Δh ₁	1.0 max.	
	Δh ₂	1.0 max.	
Length of Snipped Lead	L	11.0 ⁺⁰ _{-1.0}	
Width of Hold Position	W ₀	12.0 ± 0.5	
Hold-down Tape Position	W ₂	1.5 ± 1.5	
Lead Distance Between Reference and Bottom Planes	H	18.5 ± 1.0	16.5 & 20.0mm Lengths are also available
Lead Spacing	F	5.0 ^{+0.8} _{-0.2}	
	F ₁	2.5 ^{+0.4} _{-0.2}	

PACKAGING TYPE AND NUMBERS

Part Number	Quantity (Pcs.)	
	Flat Pack	Reel
DS□306 Series	2000	—
DS310/310H Series	2000	—
DST310/310H Series	—	1000*
DSS310/310H Series	—	800

※ Non Standard