

EMI Suppression Filters (Lead Type EMIFIL®)



Disc Type EMIFIL® Part Numbering

Disc Type EMIFIL®

(Part Number)

DS	S	9	H	B3	2E	271	Q55	B
①	②	③	④	⑤	⑥	⑦	⑧	⑨

① Product ID

Product ID	
DS	Three-terminals Capacitor

② Structure

Code	Structure
N	No Ferrite Beads Type
S	Built-in Ferrite Beads Type
T	with Ferrite Beads Type

③ Style

Code	Style
6	Diameter 8.0mm max.
9	Diameter 12.0mm max.

④ Category

Code	Category
N	for General Use
H	for Heavy-duty

⑧ Lead Type/⑨ Packaging

Code	Lead Type	Lead Length* (mm)	Packaging	Series
Q55B	Straight	25.0 min.	Bulk	All series
Q50B		4.0±0.5		DST9N/H
Q52B		6.0±1.0		DST9N
Q54B		4.0±0.5		DSN6N/9N, DSS6N/9N, DSS9H
Q56B		6.0±1.0		
T41B	Incrimp	4.0±0.5	Paper Reel (ø320mm)	DSS6N
T51B		25.0 min.		
Q91J	Straight	20.0±1.0	Ammo Pack	DSS9N/H
Q92J		16.5±1.0		
Q93J		18.5±1.0		DS□6N, DSN9N/H
Q91A		20.0±1.0		
Q92A		16.5±1.0		
Q93A	Incrimp	18.5±1.0		All series except DSS9N/H
U21A		16.5±1.0		
U31A		18.5±1.0		DSS6N

*Lead Distance between Reference and Bottom Planes except Bulk.

⑤ Temperature Characteristics

Code	Capacitance Change
B3/P3	±10% (Temperature Range: -25°C to +85°C)
C5	±22% (Temperature Range: -25°C to +85°C)
T3	+20/-30% (Temperature Range: -25°C to +85°C)
E5	+22/-56% (Temperature Range: -25°C to +85°C)
F3	+30/-80% (Temperature Range: -25°C to +85°C)
Z8	+30/-85% (Temperature Range: -10°C to +60°C)

⑥ Rated Voltage

Code	Rated Voltage
1C	16V
1H	50V
2A	100V
2E	250V

⑦ Capacitance

Expressed by three alphanumeric. The unit is in pico-farad (pF). The first and second figures are significant digits, and the third figure expresses the number of zeros which follow the two figures.

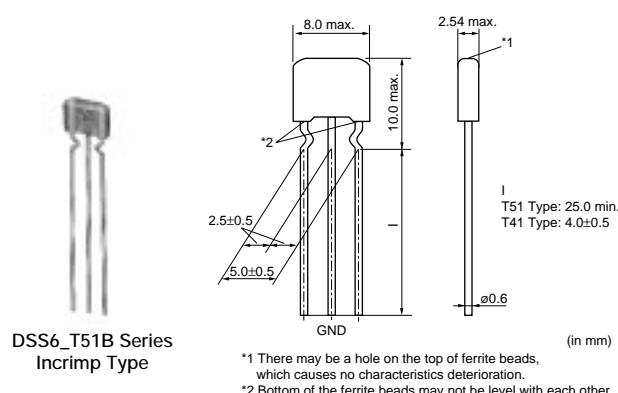
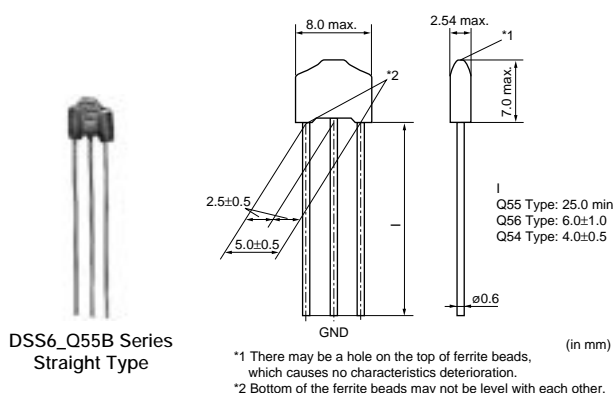
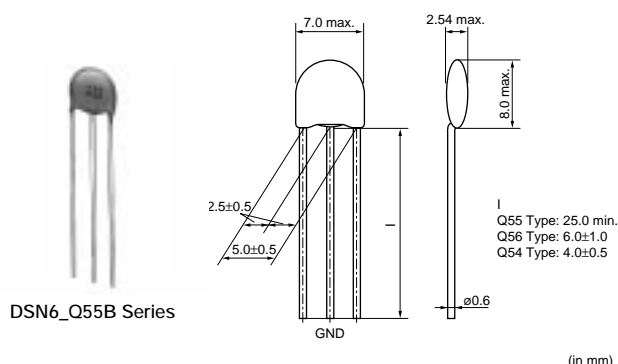
EMI Suppression Filters (Lead Type EMIFIL®)

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Disc Type EMIFIL® DSN6/DSS6 Series

■ Features

DS_6 is a compact, high performance lead type EMI suppression filter which can be mounted 2.54mm pitch. Its three terminal structure enables precise high frequency performance.

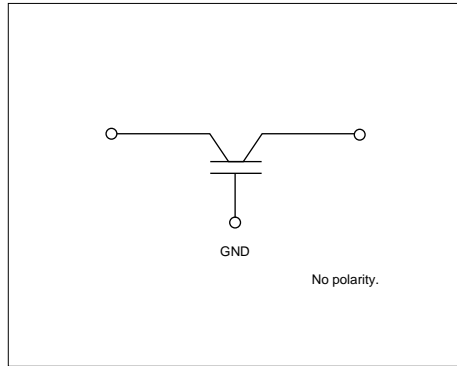


DSN6 Series

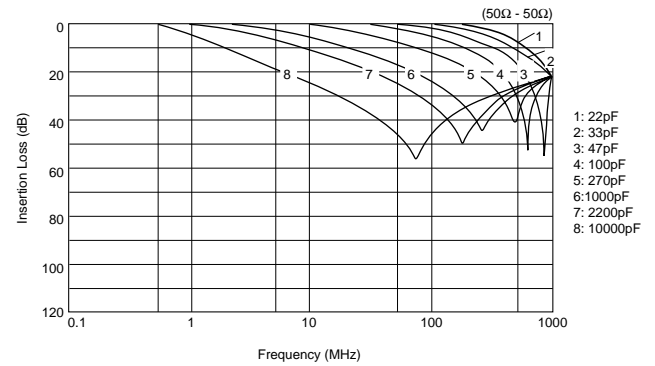
Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DSN6NC51H220	22 +20%, -20%	50	6	-25 to +85
DSN6NC51H330	33 +20%, -20%	50	6	-25 to +85
DSN6NC51H470	47 +20%, -20%	50	6	-25 to +85
DSN6NC51H101	100 +20%, -20%	50	6	-25 to +85
DSN6NC51H271	270 +20%, -20%	50	6	-25 to +85
DSN6NC51H102	1000 +20%, -20%	50	6	-25 to +85
DSN6NC51H222	2200 +20%, -20%	50	6	-25 to +85
DSN6NZ81H103	10000 +80%, -20%	50	6	-25 to +85

Please refer to Part Numbering for Type and Length of Lead.

■ Equivalent Circuit



■ Insertion Loss Characteristics

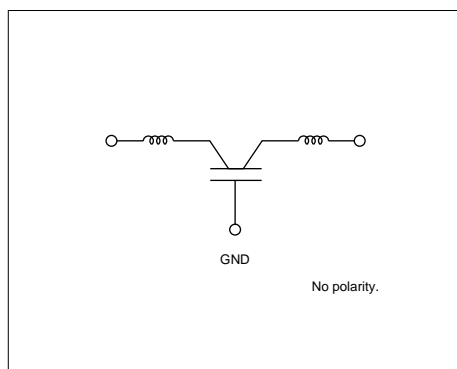


Built-in Ferrite Beads DSS6 Series Straight Type

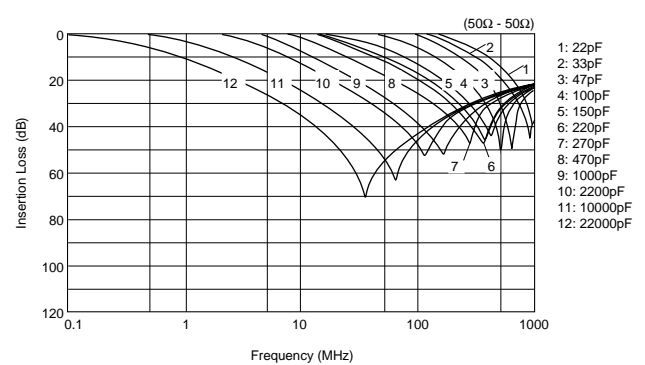
Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DSS6NC52A220	22 +20%, -20%	100	6	-25 to +85
DSS6NC52A330	33 +20%, -20%	100	6	-25 to +85
DSS6NC52A470	47 +20%, -20%	100	6	-25 to +85
DSS6NC52A101	100 +20%, -20%	100	6	-25 to +85
DSS6NC52A151	150 +20%, -20%	100	6	-25 to +85
DSS6NC52A221	220 +20%, -20%	100	6	-25 to +85
DSS6NC52A271	270 +20%, -20%	100	6	-25 to +85
DSS6NC52A471	470 +20%, -20%	100	6	-25 to +85
DSS6NC52A102	1000 +20%, -20%	100	6	-25 to +85
DSS6NE52A222	2200 +80%, -20%	100	6	-25 to +85
DSS6NZ82A103	10000 +30%, -30%	100	6	-25 to +85
DSS6NF31C223	22000 +80%, -20%	16	6	-25 to +85

Please refer to Part Numbering for Type and Length of Lead.

■ Equivalent Circuit



■ Insertion Loss Characteristics



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Please refer to Part Numbering for Type and Length of Lead.

The graph shows the insertion loss of a series capacitor across a frequency range from 0.1 MHz to 1000 MHz. The y-axis represents Insertion Loss in dB, ranging from 0 to 120. The x-axis represents Frequency in MHz, on a logarithmic scale. Twelve curves are plotted, each corresponding to a different capacitor value. The curves generally show that insertion loss increases with frequency and decreases with increasing capacitance. Curves 1 through 12 are labeled with their respective capacitor values in pF.

Curve Number	Capacitor Value (pF)
1	22pF
2	33pF
3	47pF
4	100pF
5	150pF
6	220pF
7	270pF
8	470pF
9	1000pF
10	2200pF
11	10000pF
12	22000pF