

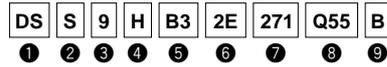
On-Board Type (DC) EMI Suppression Filters (EMIFIL®)



Disc Type EMIFIL® Part Numbering

Disc Type EMIFIL®

(Part Number)



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

⑤ Temperature Characteristics

Code	Capacitance Change
B3	±10% (Temperature Range : -25°C to +85°C)
C5	±22% (Temperature Range : -25°C to +85°C)
D3	+20/-30% (Temperature Range : -25°C to +85°C)
E3	+20/-55% (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 figures. 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.

⑧ Lead Type/⑨ Packaging

Code	Lead Type	Lead Length* (in 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		DSN6/9, DSS6/9
Q56B		6.0±1.0		DSS6N
T41B	Incrimp	4.0±0.5	Paper Reel (ø320mm)	DSS9N/H
T51B		25.0 min.		
Q91J	Straight	20.0±1.0	Ammo Pack	All series except DSS9N/H
Q92J		16.5±1.0		
Q93J		18.5±1.0		
Q91A		20.0±1.0		
Q92A		16.5±1.0		
Q93A	18.5±1.0			
U21A	Incrimp	16.5±1.0		DSS6N
U31A		18.5±1.0		

*Lead Distance between Reference and Bottom Planes except Bulk.

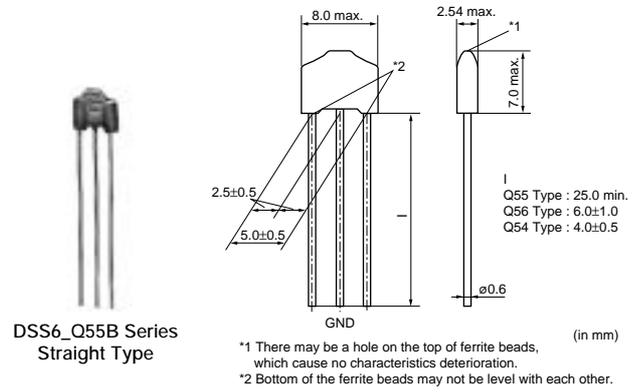
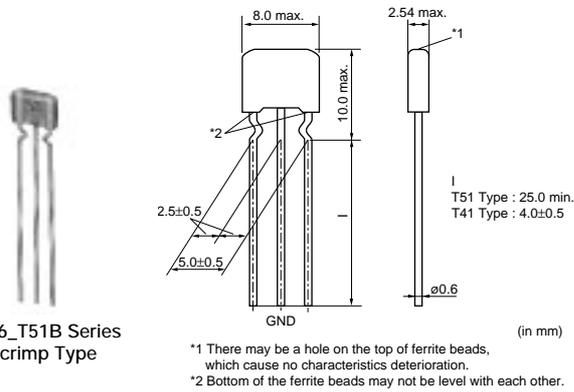
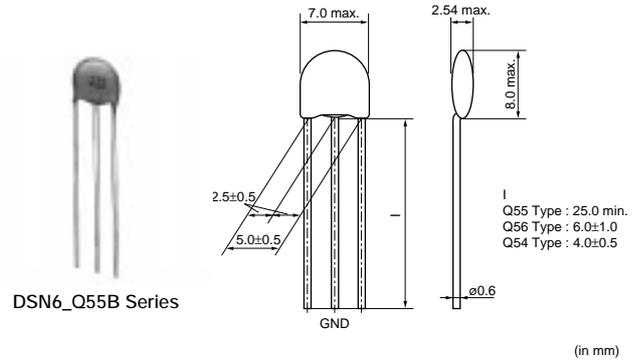
On-Board Type (DC) EMI Suppression Filters (EMIFIL®)



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 nice high frequency performance.



*1 There may be a hole on the top of ferrite beads, which cause no characteristics deterioration.
 *2 Bottom of the ferrite beads may not be level with each other.

*1 There may be a hole on the top of ferrite beads, which cause no characteristics deterioration.
 *2 Bottom of the ferrite beads may not be level with each other.

DSN6 Series

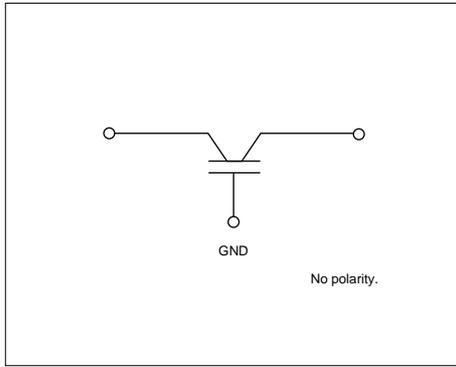
Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DSN6NC51H220	22 +20%, -20%	50	6	-25 to +85
DSN6NC51H330	33 +20%, -20%	50	6	-25 to +85
DSN6NC51H470	47 +20%, -20%	50	6	-25 to +85
DSN6NC51H101	100 +20%, -20%	50	6	-25 to +85
DSN6NC51H271	270 +20%, -20%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

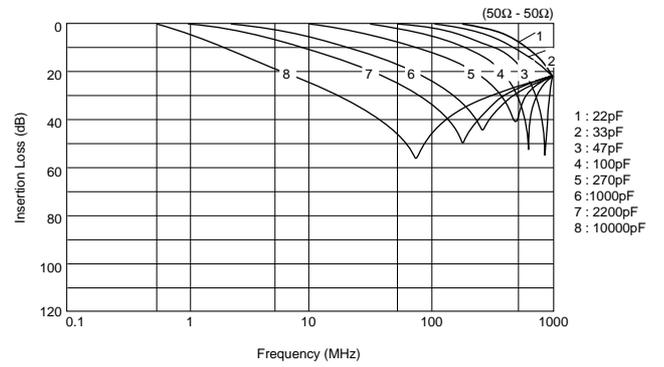
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■ Equivalent Circuit



■ Insertion Loss Characteristics (Typical)

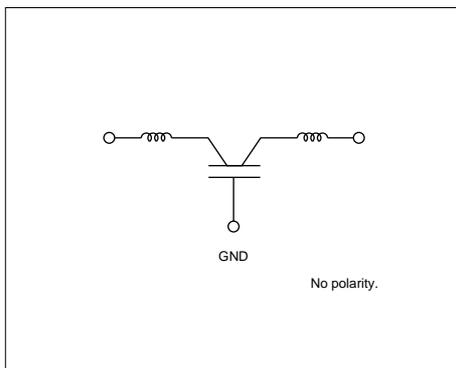


Built-in Ferrite Beads DSS6 Series Incrimp Type

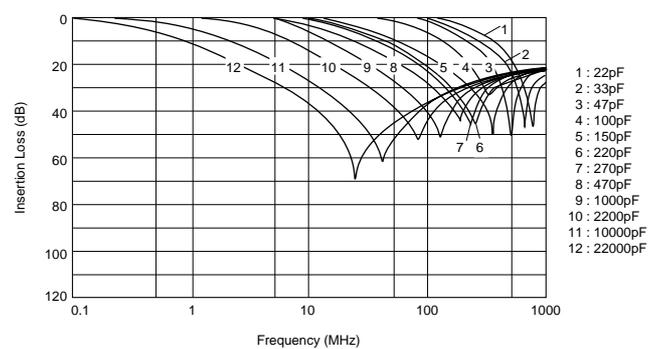
Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DSS6NC52A220	22 +20%, -20%	100	6	-25 to +85
DSS6NC52A330	33 +20%, -20%	100	6	-25 to +85
DSS6NC52A470	47 +20%, -20%	100	6	-25 to +85
DSS6NC52A101	100 +20%, -20%	100	6	-25 to +85
DSS6NC52A151	150 +20%, -20%	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 (Typical)



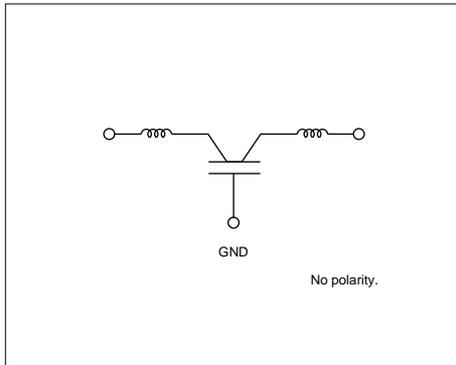
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Built-in Ferrite Beads DSS6 Series Straight Type

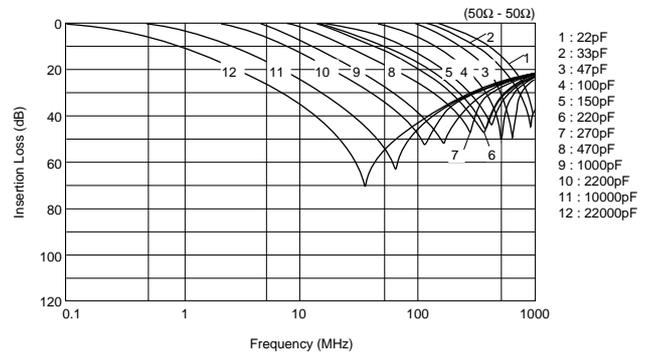
Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DSS6NC52A220	22 +20%, -20%	100	6	-25 to +85
DSS6NC52A330	33 +20%, -20%	100	6	-25 to +85
DSS6NC52A470	47 +20%, -20%	100	6	-25 to +85
DSS6NC52A101	100 +20%, -20%	100	6	-25 to +85
DSS6NC52A151	150 +20%, -20%	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 (Typical)



On-Board Type (DC) EMI Suppression Filters (EMIFIL®)



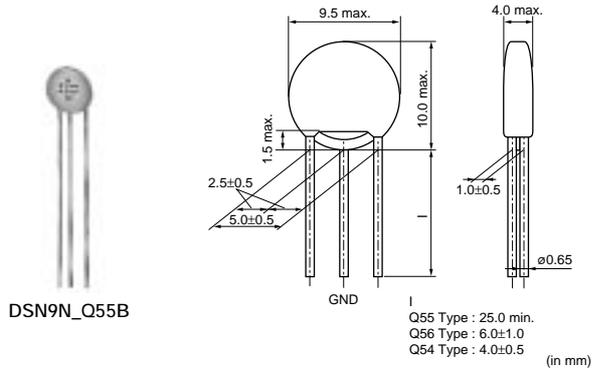
Disc Type EMIFIL® Broad Type DSN9/DSS9/DST9 Series

■ Features

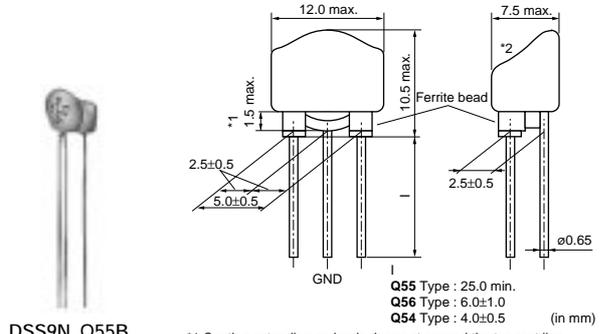
DS_9 is a basic type EMI suppression filter which can obtain high insertion loss in a wide frequency range. Its three terminal structure enables nice high frequency performance. DSS9NP32A222/DSS9NT31H223 are low distortion types for audio circuits.

■ Supplement

Diameter of lead is 0.6mm for taping type.
Taping type is three terminal in line arrangement.

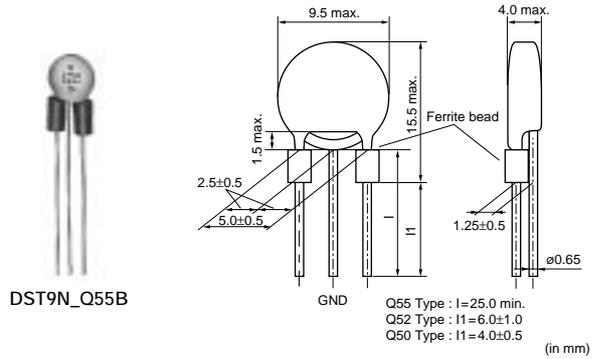


DSN9_Q55B



DSS9_Q55B

*1 Coating extending on leads does not exceed the tangent line. Exposed electrode, if any, is covered by solder, etc.
 *2 There should not be the exposure of the ferrite bead if a hole is in top of filter, the ferrite bead should not be exposed.



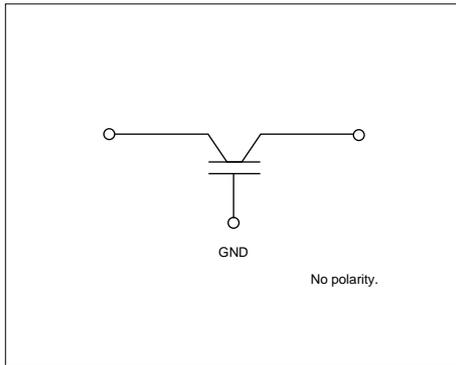
DST9_Q55B

DSN9 Series

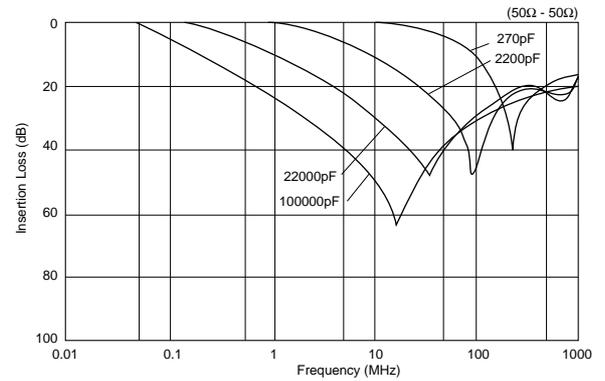
Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DSN9NC52A271	270 +20%,-20%	100	7	-25 to +85
DSN9NC52A222	2200 +20%,-20%	100	7	-25 to +85
DSN9NC51H223	22000 +50%,-20%	50	7	-25 to +85
DSN9NC51C104	100000 +20%,-20%	16	7	-25 to +85

Rated current is 6A for taping type and its lead diameter is phi 0.6mm.
Please refer to Part Numbering for Type and Length of Lead.

Equivalent Circuit



Insertion Loss Characteristics (Typical)

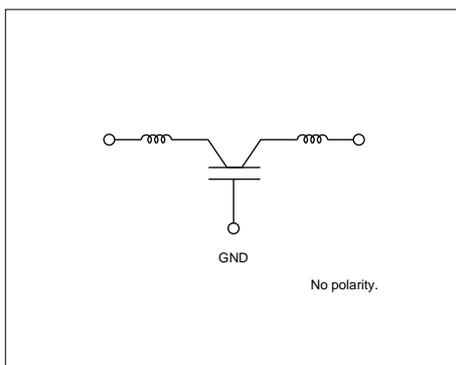


Built-in Ferrite Beads DSS9 Series

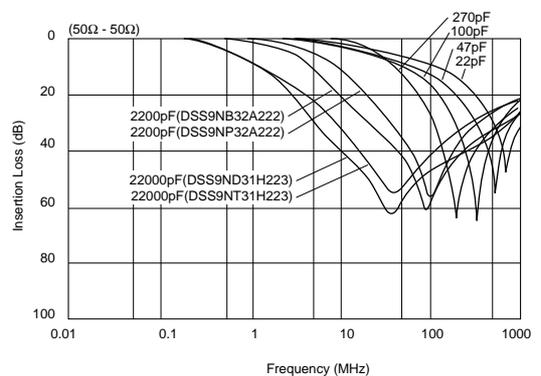
Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DSS9NC52A220	22 +20%,-20%	100	7	-25 to +85
DSS9NC52A470	47 +20%,-20%	100	7	-25 to +85
DSS9NC52A101	100 +20%,-20%	100	7	-25 to +85
DSS9NC52A271	270 +20%,-20%	100	7	-25 to +85
DSS9NC52A222	2200 +20%,-20%	100	7	-25 to +85
DSS9NP32A222	2200 +20%,-20%	100	7	-25 to +85
DSS9NC51H223	22000 +50%,-20%	50	7	-25 to +85
DSS9NT31H223	22000 +50%,-20%	50	7	-25 to +85

Rated current is 6A for taping type and its lead diameter is phi 0.6mm.
DSS9NP32A222/DSS9NT31H223 are low distortion types for audio IF circuits.
Please refer to Part Numbering for Type and Length of Lead.

Equivalent Circuit



Insertion Loss Characteristics (Typical)



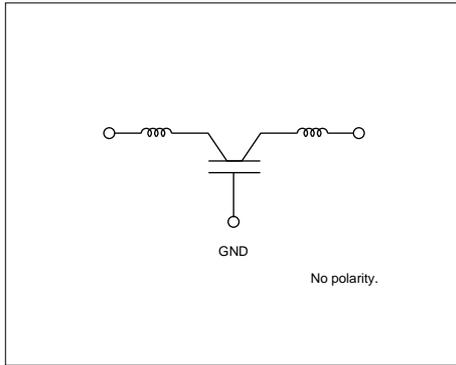
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With Ferrite Beads DST9 Series

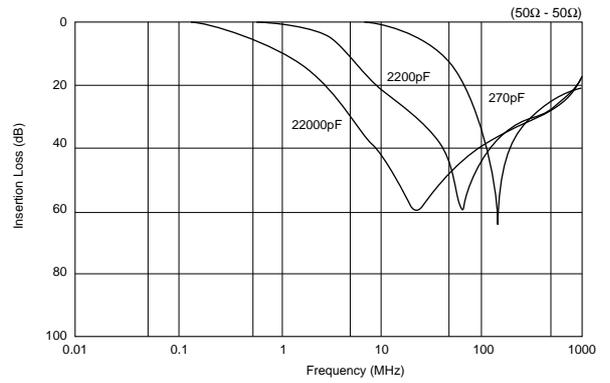
Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DST9NC52A271	270 +20%,-20%	100	7	-25 to +85
DST9NC52A222	2200 +20%,-20%	100	7	-25 to +85
DST9NC51H223	22000 +50%,-20%	50	7	-25 to +85

Rated current is 6A for taping type and its lead diameter is phi 0.6mm.
 Please refer to Part Numbering for Type and Length of Lead.

■ Equivalent Circuit



■ Insertion Loss Characteristics (Typical)



On-Board Type (DC) EMI Suppression Filters (EMIFIL®)



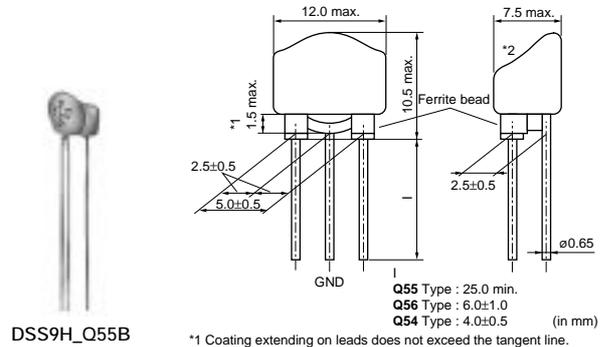
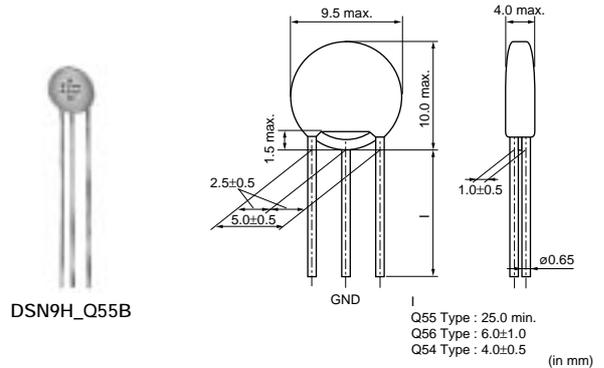
Disc Type EMIFIL® Heavy-duty Type DSN9H/DSS9H/DST9H Series

■ Features

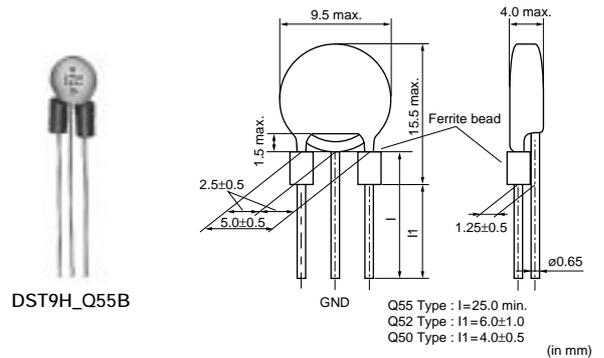
DS_9H is a basic type EMI suppression filter which can obtain high insertion loss in a wide frequency range. Its three terminal structure enables nice high frequency performance. High rated voltage of 250Vdc and wide operating temperature range from -40 degree C to 105 degree C are suitable for high reliability circuits.

■ Supplement

Diameter of lead is 0.6mm for taping type.
 Taping type is three terminal in line arrangement.



*1 Coating extending on leads does not exceed the tangent line. Exposed electrode, if any, is covered by solder, etc.
 *2 There should not be the exposure of the ferrite bead if a hole is in top of filter, the ferrite bead should not be exposed.



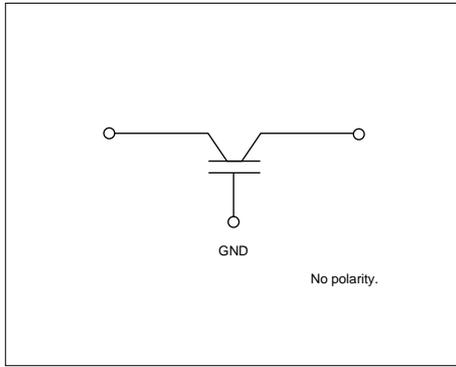
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DSN9H Series

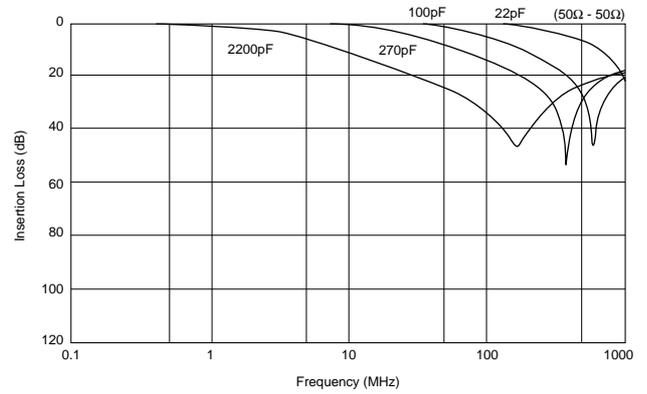
Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DSN9HB32E220	22 +20%, -20%	250	6	-40 to +105
DSN9HB32E101	100 +20%, -20%	250	6	-40 to +105
DSN9HB32E271	270 +20%, -20%	250	6	-40 to +105
DSN9HB32E222	2200 +20%, -20%	250	6	-40 to +105

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

■ Equivalent Circuit



■ Insertion Loss Characteristics (Typical)

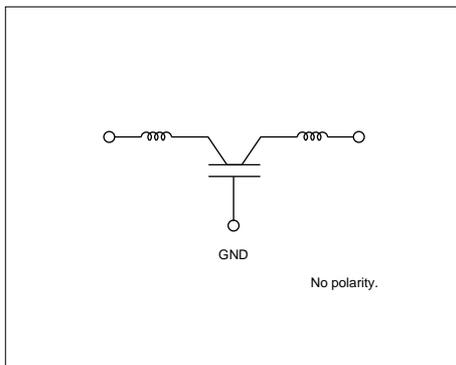


Built-in Ferrite Beads DSS9H Series

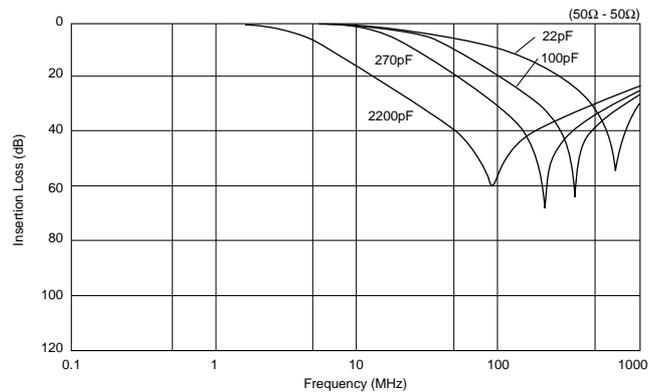
Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DSS9HB32E220	22 +20%,-20%	250	6	-40 to +105
DSS9HB32E101	100 +20%,-20%	250	6	-40 to +105
DSS9HB32E271	270 +20%,-20%	250	6	-40 to +105
DSS9HB32E222	2200 +20%,-20%	250	6	-40 to +105

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

■ Equivalent Circuit



■ Insertion Loss Characteristics (Typical)

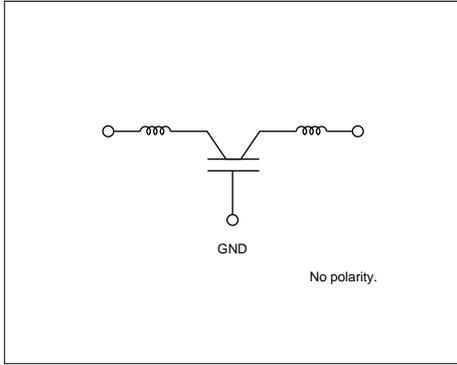


With Ferrite Beads DST9H Series

Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DST9HB32E220	22 +20%,-20%	250	6	-40 to +105
DST9HB32E101	100 +20%,-20%	250	6	-40 to +105
DST9HB32E271	270 +20%,-20%	250	6	-40 to +105
DST9HB32E222	2200 +20%,-20%	250	6	-40 to +105

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

■ Equivalent Circuit



■ Insertion Loss Characteristics (Typical)

