

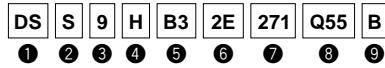
On-Board Type (DC) EMI Suppression Filters (EMIFIL®)



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 Type
9	Diameter 9.5mm Type

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, DST9N
T51B		25.0 min.		DSS9N/H
Q91J	Straight	20.0±1.0	Ammo Pack	DS□6, DSN9N/H
Q92J		16.5±1.0		All series except DSS9N/H
Q93J		18.5±1.0		DSS6N
Q91A		20.0±1.0		
Q92A		16.5±1.0		
Q93A	18.5±1.0			
U21A	Incrimp	16.5±1.0		
U31A		18.5±1.0		

*Lead Distance between Reference and Bottom Planes except Bulk.

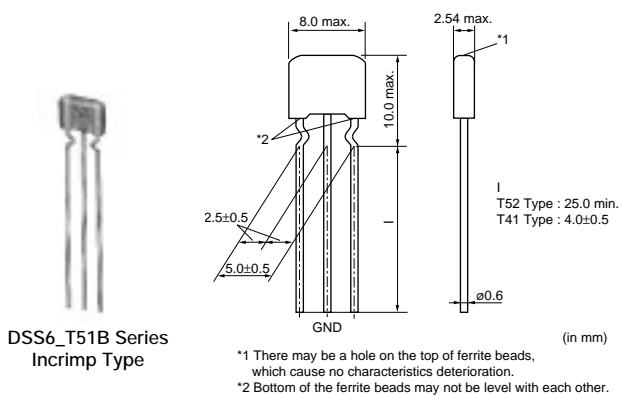
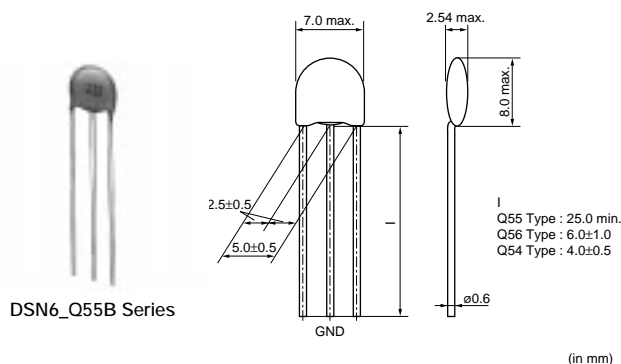
On-Board Type (DC) EMI Suppression Filters (EMIFIL®)



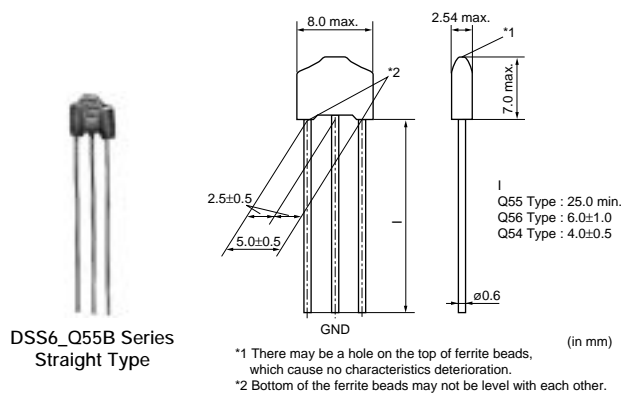
Disc Type EMIFIL® DSN6/DSS6 Series

■ 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.



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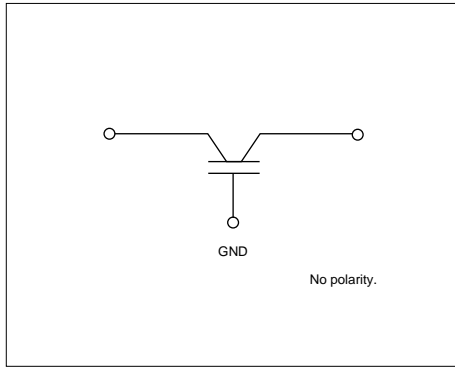
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DSN6 Series

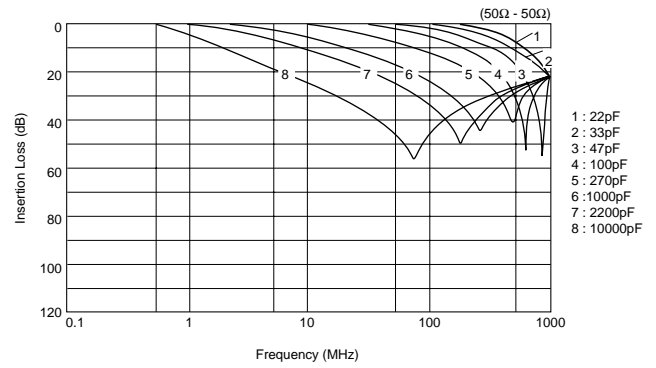
Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DSN6NC51H220	22 +20%, -20%	50	6	-25 to +85
DSN6NC51H330	33 +20%, -20%	50	6	-25 to +85
DSN6NC51H470	47 +20%, -20%	50	6	-25 to +85
DSN6NC51H101	100 +20%, -20%	50	6	-25 to +85
DSN6NC51H271	270 +20%, -20%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



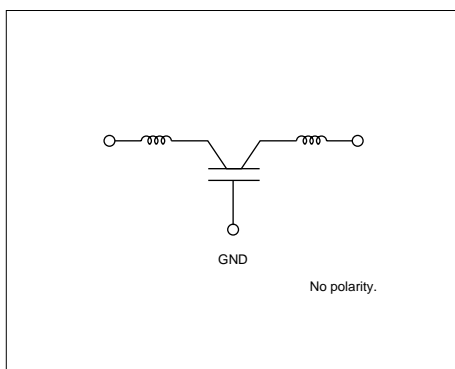
Built-in Ferrite Beads DSS6 Series Incrimp Type

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

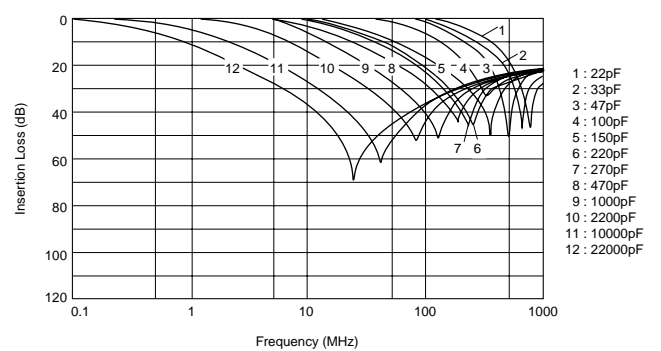
Please refer to Part Numbering for Type and Length of Lead.

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■ Equivalent Circuit



■ Insertion Loss Characteristics (Typical)

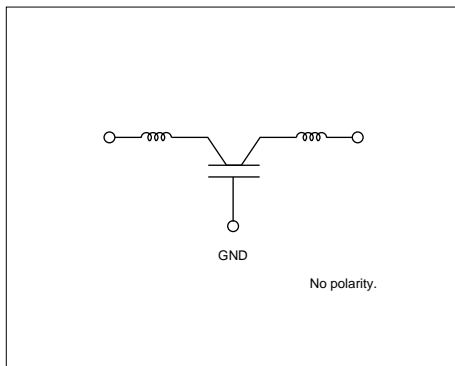


Built-in Ferrite Beads DSS6 Series Straight Type

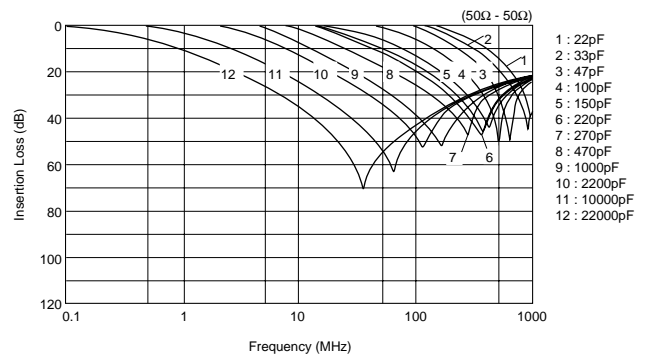
Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DSS6NC52A220	22 +20%, -20%	100	6	-25 to +85
DSS6NC52A330	33 +20%, -20%	100	6	-25 to +85
DSS6NC52A470	47 +20%, -20%	100	6	-25 to +85
DSS6NC52A101	100 +20%, -20%	100	6	-25 to +85
DSS6NC52A151	150 +20%, -20%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



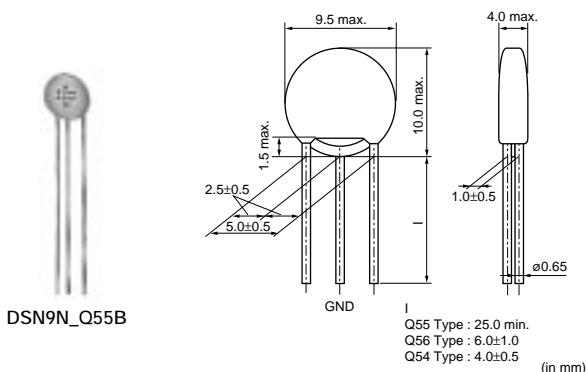
On-Board Type (DC) EMI Suppression Filters (EMIFIL[®])



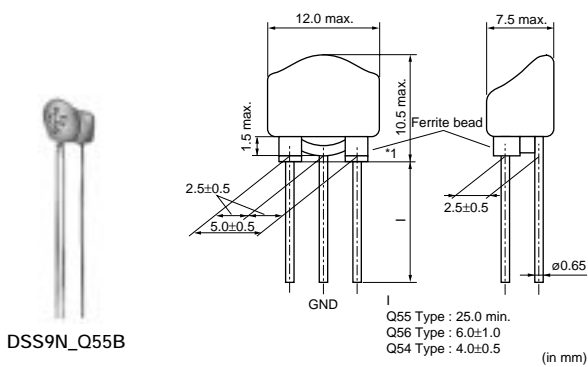
Disc Type EMIFIL[®] Broad Type DSN9/DSS9/DST9 Series

■ Features

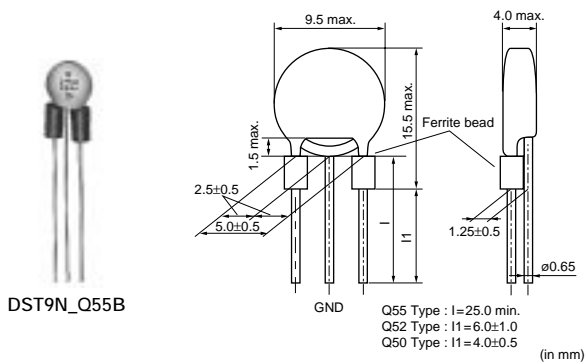
DS_9 is a basic type EMI suppression filter which can obtain high insertion loss in a wide frequency range. Its three terminal structure enables nice high frequency performance. DSS9NP32A222/DSS9NT31H223 are lost distortion types for audio circuits.



DSN9N_Q55B



DSS9N_Q55B



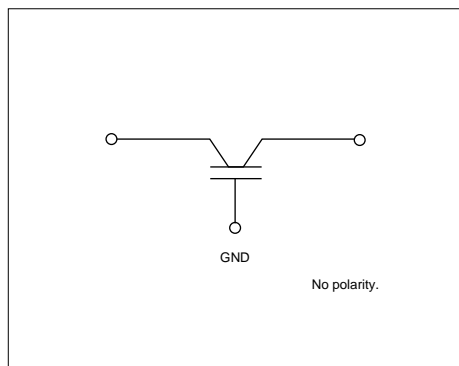
DST9N_Q55B

*1 Bottom of the ferrite beads may not be level with each other.

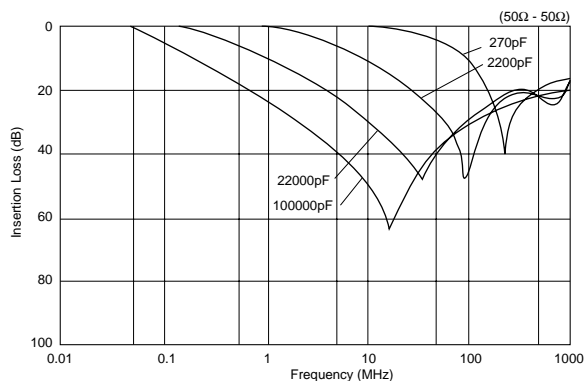
DSN9 Series

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

■ Equivalent Circuit



■ Insertion Loss Characteristics (Typical)



Built-in Ferrite Beads DSS9 Series

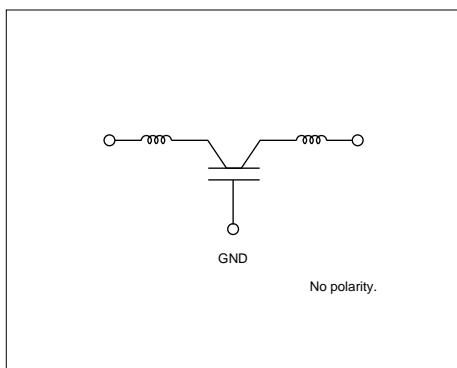
Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DSS9NC52A220	22 +20%, -20%	100	7	-25 to +85
DSS9NC52A470	47 +20%, -20%	100	7	-25 to +85
DSS9NC52A101	100 +20%, -20%	100	7	-25 to +85
DSS9NC52A271	270 +20%, -20%	100	7	-25 to +85
DSS9NC52A222	2200 +20%,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

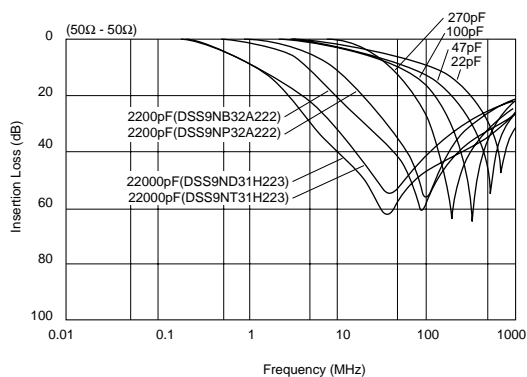
DSS9NP32A222/DSS9NT31H223 are low distortion types for audio IF circuits.

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

Equivalent Circuit



Insertion Loss Characteristics (Typical)



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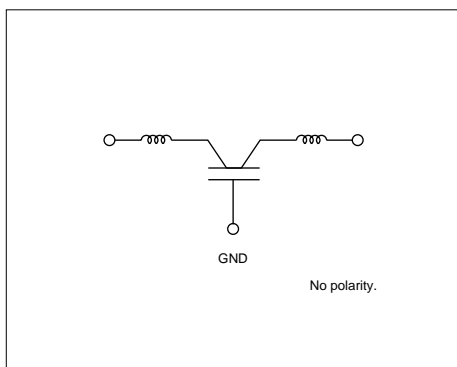
With Ferrite Beads DST9 Series

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

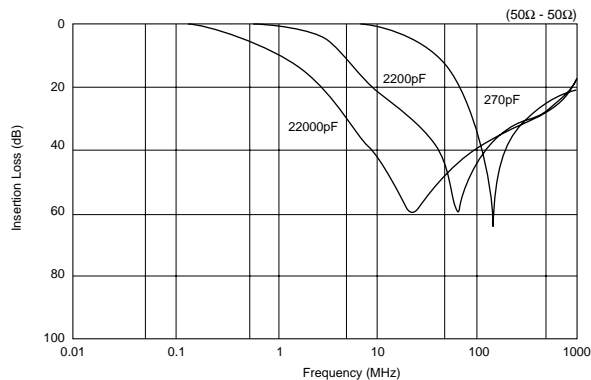
Rated current is 6A for taping type.

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

Equivalent Circuit



Insertion Loss Characteristics (Typical)



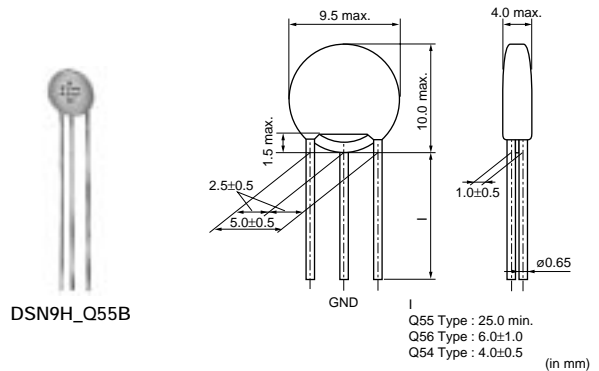
On-Board Type (DC) EMI Suppression Filters (EMIFIL®)



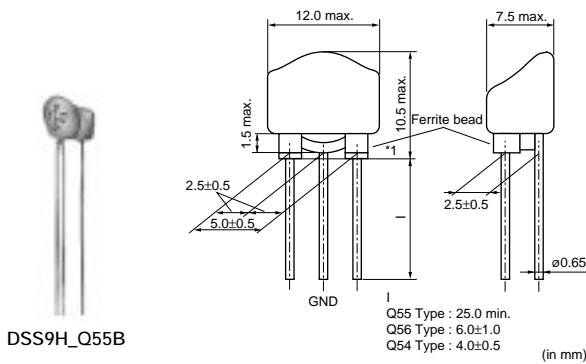
Disc Type EMIFIL® Heavy-duty Type DSN9H/DSS9H/DST9H Series

■ 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.

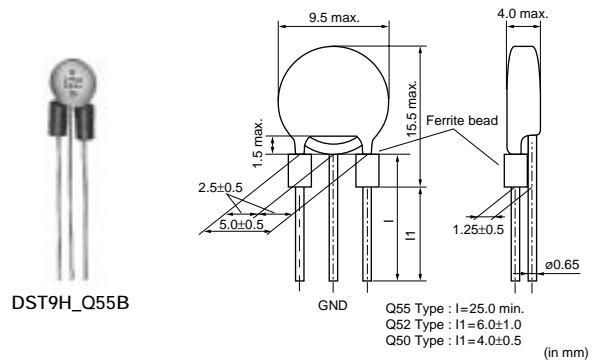


DSN9H_Q55B



DSS9H_Q55B

*1 Bottom of the ferrite beads may not be level with each other.



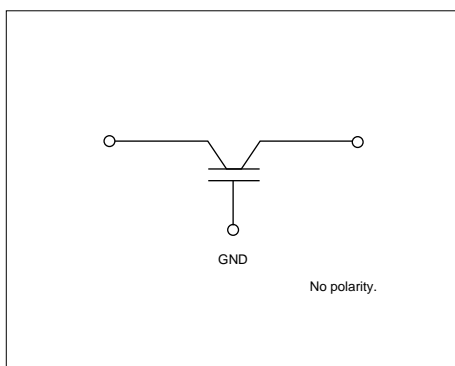
DST9H_Q55B

DSN9H Series

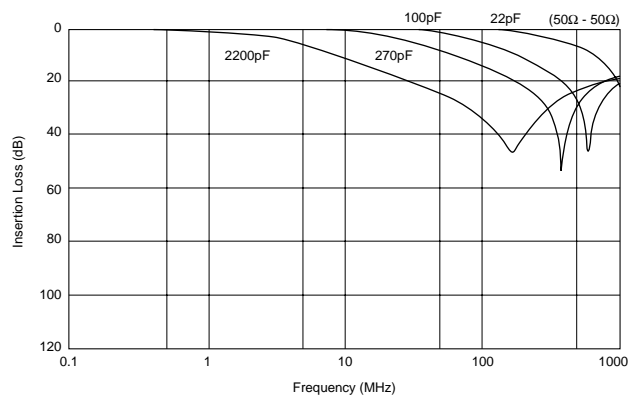
Part Number	Capacitance (pF)	Rated Voltage (Vdc)	Rated Current (A)	Operating Temperature Range (°C)
DSN9HB32E220	22 +20%, -20%	250	6	-40 to +105
DSN9HB32E101	100 +20%, -20%	250	6	-40 to +105
DSN9HB32E271	270 +20%, -20%	250	6	-40 to +105
DSN9HB32E222	2200 +20%, -20%	250	6	-40 to +105

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

■ Equivalent Circuit



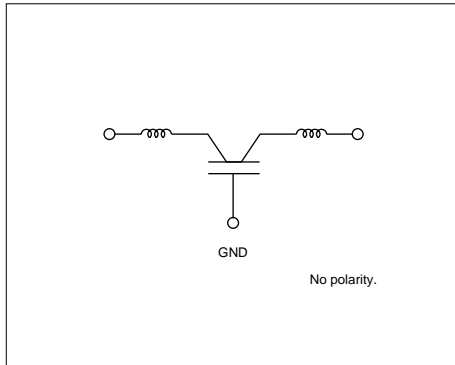
■ Insertion Loss Characteristics (Typical)



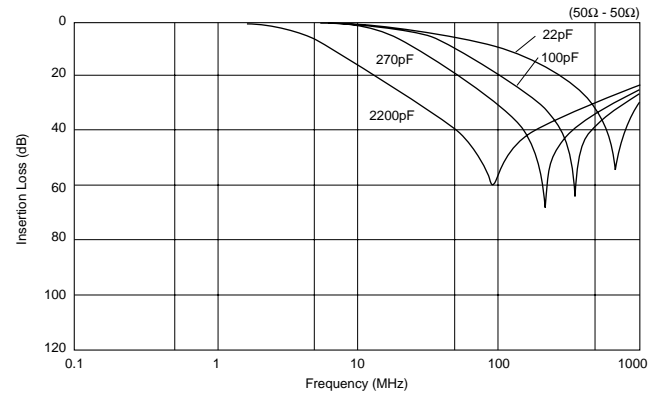
Built-in Ferrite Beads DSS9H Series

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

■ Equivalent Circuit



■ Insertion Loss Characteristics (Typical)

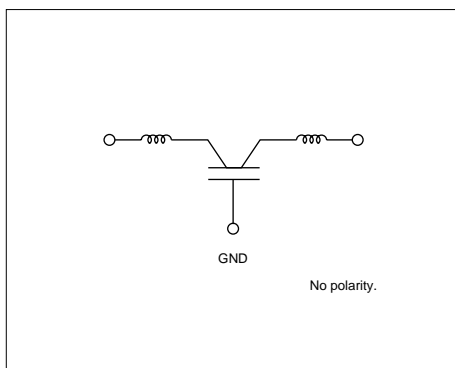


With Ferrite Beads DST9H Series

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

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■ Equivalent Circuit



■ Insertion Loss Characteristics (Typical)

