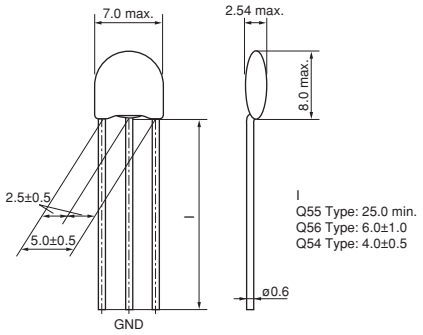
Leaded EMIFIL® (Three-terminal Capacitor type) Small Type

DSN6/DSS6 Series

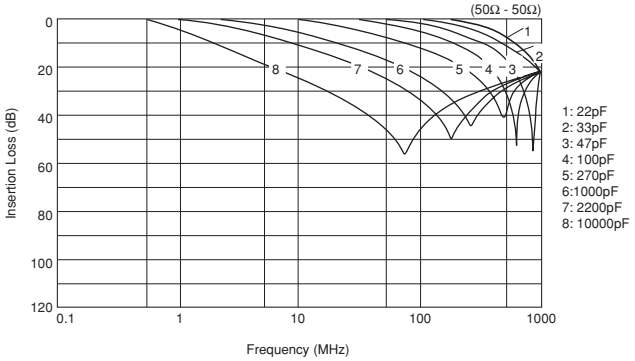
DSN6 Series

■ Dimensions



(in mm)

■ Insertion Loss Characteristics (Main Items)

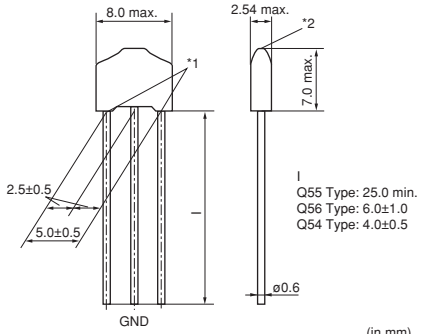


■ Rated Value (□: lead type/packaging code)

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

DSS6 Series Straight Type

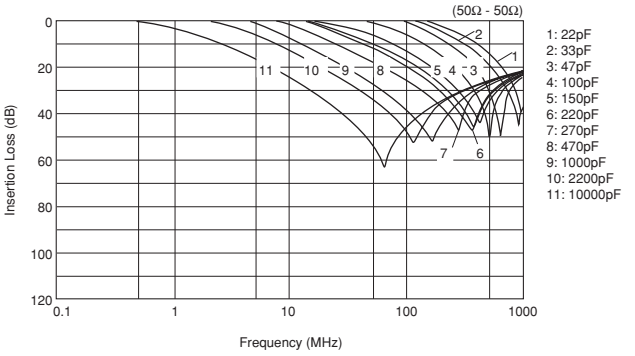
■ Dimensions



(in mm)

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

■ Insertion Loss Characteristics (Main Items)



Continued on the following page.

●This data sheet is applied for Lead EMIFIL® Capacitor Type used for General Electronics equipment for your design.

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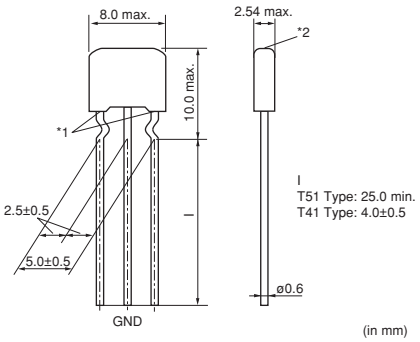
Continued from the preceding page.

■ Rated Value (□: lead type/packaging code)

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

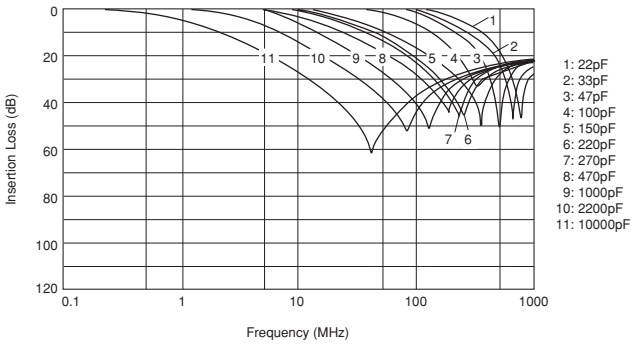
DSS6 Series Incrimp Type

■ Dimensions



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

■ Insertion Loss Characteristics (Main Items)



■ Rated Value (□: lead type/packaging code)

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

Continued on the following page.

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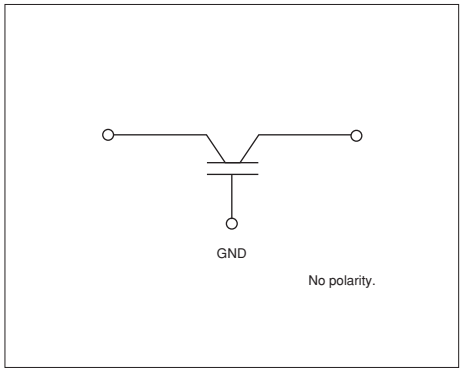
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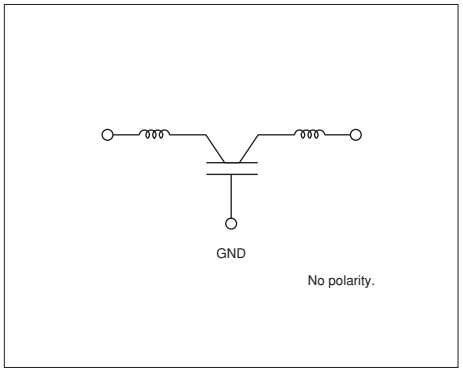
■ Equivalent Circuit

DSN6 Series



■ Equivalent Circuit

DSS6 Series



■ Packaging

● Minimum Quantity

Part Number	Minimum Order Quantity (order in sets only) (Pcs.)		
	Ammo Pack	ø320mm Paper reel	Bulk (Bag)
DS□6 Series	2000	—	250 **Q55/T51** 500 **Q54/Q56/T41**

● Lead Type/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		
T41B	Incrimp	4.0±0.5		**DSS6N**
T51B		25.0 min.		
Q91J	Straight	20.0±1.0	Paper Reel (ø320mm)	**DSS9N/H**
Q92J		16.5±1.0		
Q93J		18.5±1.0		
Q91A		20.0±1.0	Ammo Pack	**DS□6**, **DSN9N/H**
Q92A		16.5±1.0		All series except **DSS9N/H**
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.

Continued on the following page.

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■ Caution · Notice

⚠Caution

● Rating

Do not use products beyond the rated current and rated voltage as this may create excessive heat and deteriorate the insulation resistance.

● Soldering and Mounting

1. Mounting holes should be designed as specified in these specifications. Other designs than those shown in these specifications may cause cracks in ceramics that may lead to smoking or firing.
2. DSN9/DST9/DSN9H/DST9H/VFS9V Series
   Mounting for PCB. (Applis only to bulk type.)
   The form of the mounting hole of the bulk item is a triangle. The product should be inserted and soldered to each hole in the correct way as in Fig.2. (The center terminal and the other terminals become parallel when viewing the product from the side.) Smoking and firing maybe caused by incorrect mounting as in Fig.3. (The center terminal and the other terminals cross when viewing the product from the side.)

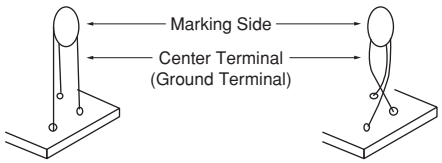


Fig.2 Right Way Fig.3 Wrong Way

Continued on the following page.

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Notice

● Storage and Operating Conditions

<Operating Environment>

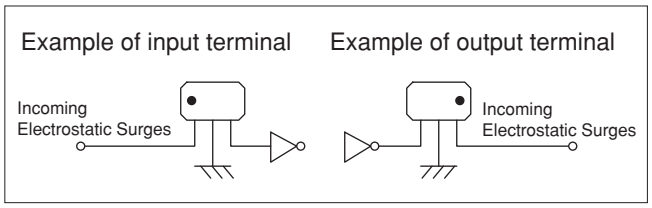
1. Do not use products in a chemical atmosphere such as chlorine gas, acid or sulfide gas.
2. Do not use products near water, oil or organic solvents. Avoid environments where dust or dirt may adhere to the product.

<Storage and Handling Requirements>

1. Storage Period
   Use the products within 12 months after delivery. Solderability should be checked if this period is exceeded.
2. Storage Conditions
   (1) Storage temperature: -10 to 40 degrees C
   Relative humidity: 15 to 85%
   Avoid sudden changes in temperature and humidity.
   (2) Do not store products in a chemical atmosphere such as chlorine gas, acid or sulfide gas.
   (3) When restoring taping type (BL01RN1A1F1J), please attach the spacer between the flanges of the reel. The spacer is corrugated paper that is attached when shipping.

<Using EMIGUARD® effectively>

1. Terminal (with mark) should be properly connected to the line of incoming electrostatic surge. (There is polarity.) Otherwise, no effect in ESD suppression can be expected (VFR3V).



2. Products should be used at rated voltage or less and rated current or less.
3. Products should not be applied for the absorption of surges that have large energy (e.g., induced lightning surges, switching surges) because it is designed for the absorption of electrostatic surges (VFR3V).
4. Electrostatic testing should be done on the following conditions (VFR3V).
   $n \cdot [C / R \cdot V^2]^2 < 8.0 \times 10^5$
   n: Times applied
   C: Charging Capacitance (pF)
   V: Testing Voltage (kV)
   R: Charging Resistance (Ω)

● Soldering and Mounting

1. Washing
   Failure and degradation of a product are caused by the washing method. When you wash in conditions that are not in the mounting information, please contact Murata engineering.
2. Soldering
   Reliability decreases with improper soldering methods. Please solder by the standard soldering conditions shown in the mounting information.
3. Other
   Noise suppression levels resulting from Murata's EMI suppression filters EMIFIL® may vary, depending on the circuits and ICs used, type of noise, mounting pattern, lead wire length, mounting location, and other operating conditions. Be sure to check and confirm in advance the noise suppression effect of each filter, in actual circuits, etc. before applying the filter in a commercial-purpose equipment design.

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