

# SURFACE MOUNTING BLOCK TYPE EMI FILTERS [DCM Series]

The surface mounting block type EMI filter, DCM series, which is based on the DNM series, has been developed to decrease the size for surface mounting purposes, which can substantially reduce the surface mounting area. It can efficiently control EMI within a wide band in common DC power lines that need large current.

## Features

- Large allowable current permits the use for DC lines up to 10A.
- The combination of a lead-through capacitor with high self-resonance frequency, a large capacitance multilayer capacitor, and multilayer suppressors ensures a large insertion loss within a wide band.
- Both plus and minus lines can be protected from EMI by a single compact block.
- The gold-plated termination ensures excellent solder heat resistance and solderability.
- RoHS Compliant.

## Applications

- DC power lines of industrial equipment, computers and peripheral equipment.

## Part Number List and Rating

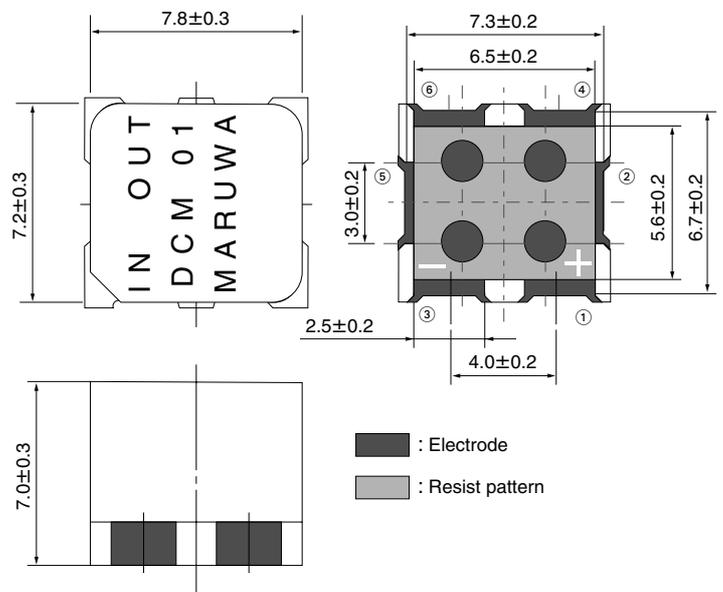
Part number	Rated voltage	Rated current	DC resistance	Temp. range	Storage temperature range	Marking	Specification
DCM01	50Vdc	10A	under 5mΩ	-25~+105°C	-55°C~+125°C	DCM01 MARUWA	Product for general circuits
DCM02	50Vdc	10A		-55~+125°C		DCM02 MARUWA	Product for high-reliability automobile use

\* "-T" is suffixed to taping products.

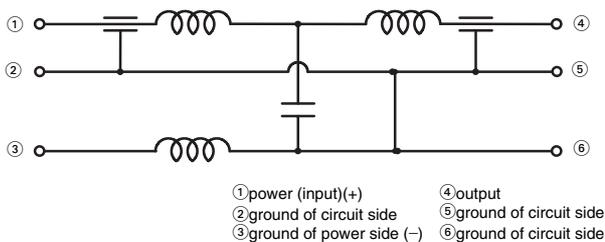
## Appearance



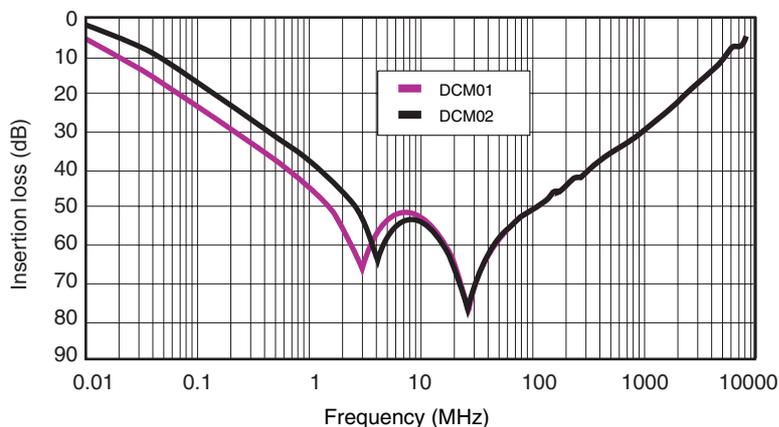
## Dimensions



## Equivalent circuit



## Insertion loss



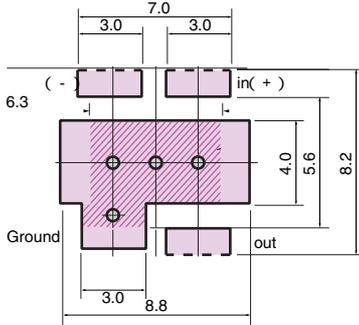
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## ■Soldering

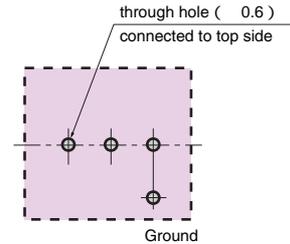
### 1.basic design

recommended land pattern.  
Please use both side of P.C.B.

#### (1) Top side



#### (2) Bottom side



~ :termination number  
unit:mm, dimensions tolerance : ± 0.1mm  
copper foil thickness : 35 μm

□ copper foil pattern  
▨ resist pattern

matters that required attention for soldering

Please pay attention to the following points when soldering on a print board.

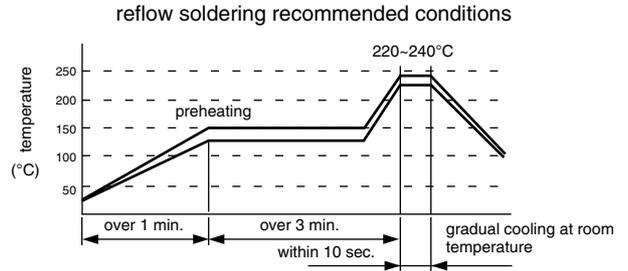
(1) Please use every termination and take ground as largely as possible.

(The parts may not perform well depending on how the ground is taken.)

(2)Please wire it so that a ground of circuit side(termination , , ) is not connected to a ground of power side(termination ) in other parts either.

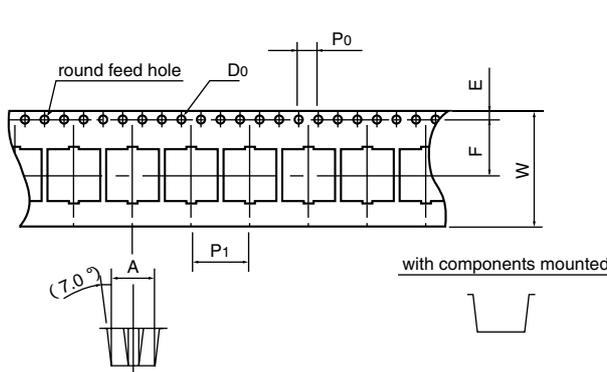
### 2. general cautions for soldering (for only reflow soldering)

For soldering,please refer to the soldering curves right.  
This part is for lead-free soldering.



## ■Taping

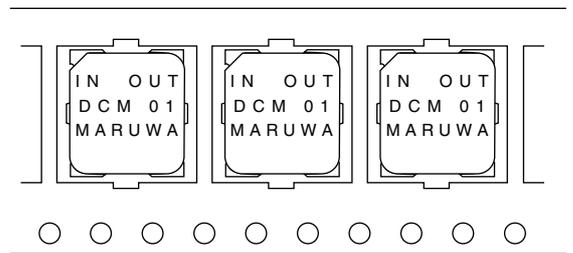
taping specifications (tape material:plastic)



unit : mm

Product insertion direction

← tape drawer direction



type	A	B	W	F	E	P1	P0	D0	t1	t2
DCM	8.7±0.1	8.7±0.1	24.0±0.3	11.5±0.1	1.75±0.1	12.0±0.1	4.0±0.1	1.5 <sup>+0.1</sup> / <sub>-0</sub>	0.6max.	8.0max.

## ■Package qty.

type	package qty.	
taping qty.	500pcs/reel	
tray qty.	minimum unit	100pcs
	maximum qty.	1,000pcs