## EMC Components

Chip beads For power line **MPZ** series (for automotive)



⊗TDK





### **FEATURES**

○ Noise reduction solution for power line.

O Because of its low DC resistance, it can handle large currents of 10A or more, optimal for low power consumption.

○ The 2520 shape achieves the industry's highest rated current of 12A.

○ Operating temperature range: -55 to +125°C

### APPLICATION

O Various ECUs, powertrains, body controls, and car multimedia (telematics).

### PART NUMBER CONSTRUCTION

MPZ	2520	S	PH	070	A	Т	D25
Series name	L×W×T dimensions 2.5x2.0x0.85 mm	Material name	Internal code	Impedance (Ω) at 100MHz	Characteristic type	Packaging style	Internal code

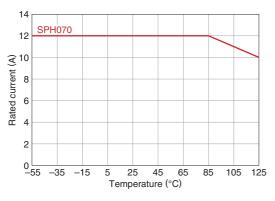
### CHARACTERISTICS SPECIFICATION TABLE

Impedance		DC resistance	Rated current		Part No.
[100MHz]			85°C	125°C	
<b>(</b> Ω <b>)</b>	Tolerance	(m $\Omega$ )max.	(A)max.	(A)max.	
7	±3Ω	1.25	12	10	MPZ2520SPH070ATD25

Measurement equipment

Measurement item	Product No.	Manufacturer		
Impedance	4991A+16192A	Keysight Technologies		
DC resistance RM3542+IM9100		HIOKI		
* Equivalent measurement equipment may be used.				

Rated current vs. temperature characteristics (derating)



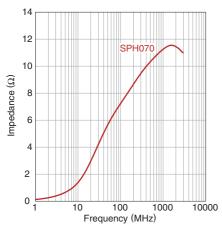


Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading. (1/4)20221025

# MPZ2520 type

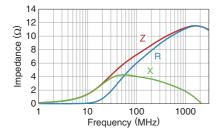
### Z VS. FREQUENCY CHARACTERISTICS (BY SERIES)

### MPZ2520 series



## Z, X, R VS. FREQUENCY CHARACTERISTICS

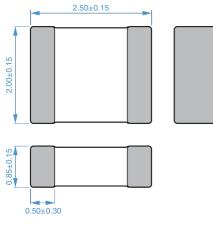
### MPZ2520SPH070ATD25



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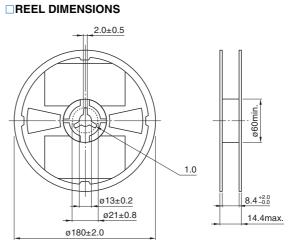
# MPZ2520 type

### **SHAPE & DIMENSIONS**



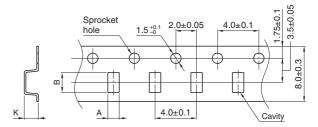
Dimensions in mm

### PACKAGING STYLE



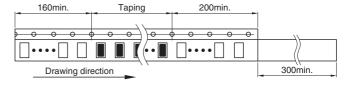
Dimensions in mm

#### **TAPE DIMENSIONS**



Dimensions in mm

Туре	А	В	К
MPZ2520	2.2±0.05	2.7±0.05	1.1±0.05



Dimensions in mm

#### **PACKAGE QUANTITY**

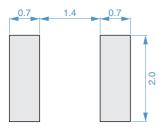
Package quantity 3000 pcs/reel

### **TEMPERATURE RANGE, INDIVIDUAL WEIGHT**

	Operating temperature range	Storage temperature range*	Individual weight
	–55 to +125°C	–55 to +125°C	20 mg
*	The storage temperature range is for after the assembly.		

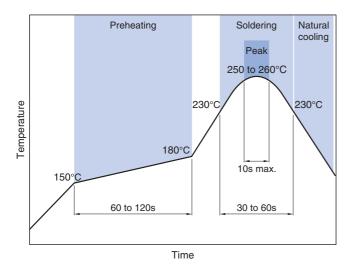
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#### RECOMMENDED LAND PATTERN



Dimensions in mm

RECOMMENDED REFLOW PROFILE



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## **REMINDERS FOR USING THESE PRODUCTS**

Before using these products, be sure to request the delivery specifications.

## SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using this products.

The storage period is within 12 months. Be sure to follow the storage conditions (temperature: 5 to 40°C, humidity: 10 to 75% RH or less). If the storage period elapses, the soldering of the terminal electrodes may deteriorate.				
	Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).			
<ul> <li>Before soldering, be sure to preheat components.</li> <li>The preheating temperature should be set so that the temperature difference between the solder temperature and chip temperature does not exceed 150°C.</li> </ul>				
Soldering corrections after mounting should be within the range of the conditions determined in the specifications. If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.				
When embedding a printed circuit board where a chip is mounted to a set, be sure that residual stress is not given to the chip due to the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.				
Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set therma design.				
Carefully lay out the coil for the circuit board design of the non-magnetic shield type. A malfunction may occur due to magnetic interference.				
○ Use a wrist band to discharge static electricity in your body throu	ugh the grounding wire.			
○ Do not expose the products to magnets or magnetic fields.				
$\bigcirc$ Do not use for a purpose outside of the contents regulated in the	e delivery specifications.			
ment, home appliances, amusement equipment, computer equipment, industrial robots) under a normal operation and use condi The products are not designed or warranted to meet the requirer ity require a more stringent level of safety or reliability, or whose person or property.	eral electronic equipment (AV equipment, telecommunications equip- uipment, personal equipment, office equipment, measurement equip- tion. nents of the applications listed below, whose performance and/or qual- failure, malfunction or trouble could cause serious damage to society, or if you have special requirements exceeding the range or conditions			
<ol> <li>Aerospace/aviation equipment</li> <li>Transportation equipment (electric trains, ships, etc.)</li> <li>Medical equipment</li> <li>Power-generation control equipment</li> <li>Atomic energy-related equipment</li> <li>Seabed equipment</li> <li>Transportation control equipment</li> <li>Transportation control equipment</li> </ol>	<ul> <li>(8) Public information-processing equipment</li> <li>(9) Military equipment</li> <li>(10) Electric heating apparatus, burning equipment</li> <li>(11) Disaster prevention/crime prevention equipment</li> <li>(12) Safety equipment</li> <li>(13) Other applications that are not considered general-purpose applications</li> </ul>			

A Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. Please note that the contents may change without any prior notice due to reasons such as upgrading. (4/4)