



# Noise Suppression Sheets

Flexield

## IFF series (Heat-resistant Type)

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# Noise Suppression Sheets

Product compatible with RoHS directive  
Halogen-free

Flexield

## Overview of IFF series (Heat-resistant Type)

### FEATURES

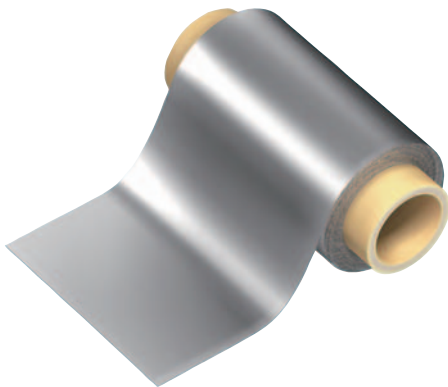
- High permeability at 13.56MHz ( $\mu'$  80typical) for improved EMI noise absorption
- Available for use in solder reflow processes (up to 260°C max)
- Operating temperature range of -40°C to +125°C
- Available down to 0.05mm thickness
- Ultra-high surface resistivity allowing for direct attachment to electrical components

### APPLICATION


- Direct attachment to unshielded power supply magnetics
- High ambient temperature industrial equipment
- Non-critical automotive systems
- Outdoor communication infrastructure equipment

### STANDARD SHAPE LIST

Material name	Magnetic layer thickness (mm)	Sheet dimensions (mm)	Roll dimensions	
			Width (mm)	Length (m)
IFF08	0.050	300X200	300	100
	0.100			



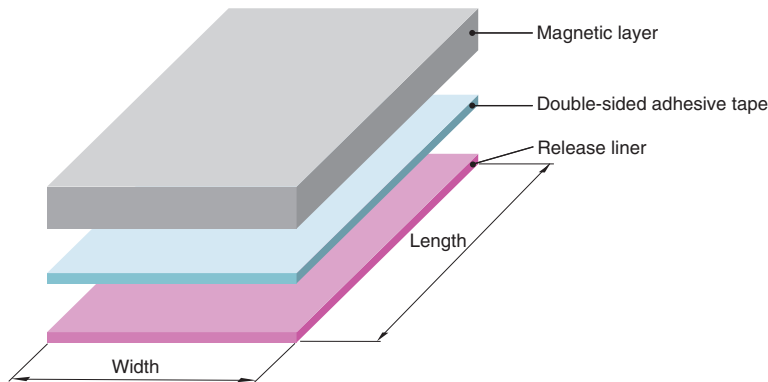
RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. <http://product.tdk.com/en/environment/rohs/>

 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.

# IFF series (Heat-resistant Type) Sheet Type

## PART NUMBER CONSTRUCTION

IFF	08	-	050	N	D	300	×	200	
Series name	Material symbol	Magnetic layer thickness (mm)		Top surface layer thickness (mm)		Double-sided adhesive tape thickness (mm)		Length (mm)	Width (mm)
IFF	08	050	0.050	N	No	N	No	300	300
		100	0.100			D	0.030		
								200	200



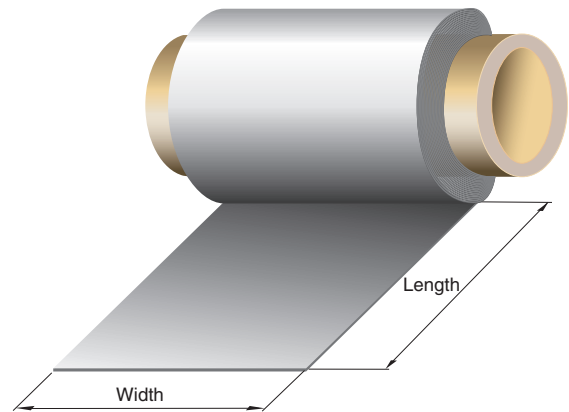
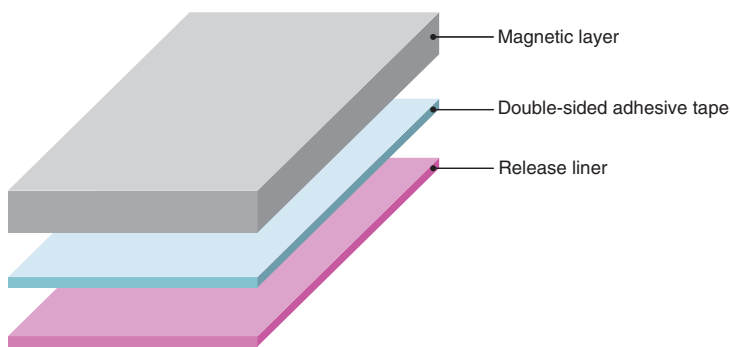
## STANDARD PART NUMBER LIST

Material name	Sheet dimensions (mm)	Magnetic layer thickness (mm)	Total thickness (mm)typ.	Part number
IFF08	300X200	0.050	0.080	IFF08-050ND300X200
		0.100	0.130	IFF08-100ND300X200

# IFF series (Heat-resistant Type) Roll Type

## PART NUMBER CONSTRUCTION

IFF	08	-	050	N	D	1HR	×	300	
Series name	Material symbol	Magnetic layer thickness (mm)		Top surface layer thickness (mm)		Double-sided adhesive tape thickness (mm)		Length (m)	Width (mm)
IFF	08	050	0.050	N	No	N	No	1HR	100
				R	0.038	D	0.030		
				R: Release type				300	300



## STANDARD PART NUMBER LIST

Material name	Roll dimensions		Magnetic layer thickness (mm)	Total thickness (mm)typ.	Part number
	Width (mm)	Length (m)			
IFF08	300	100	0.050	0.080	IFF08-050ND1HRX300
			0.100	0.130	IFF08-100ND1HRX300
			0.050	0.118*	IFF08-050RD1HRX300

\* Note: Including top surface layer

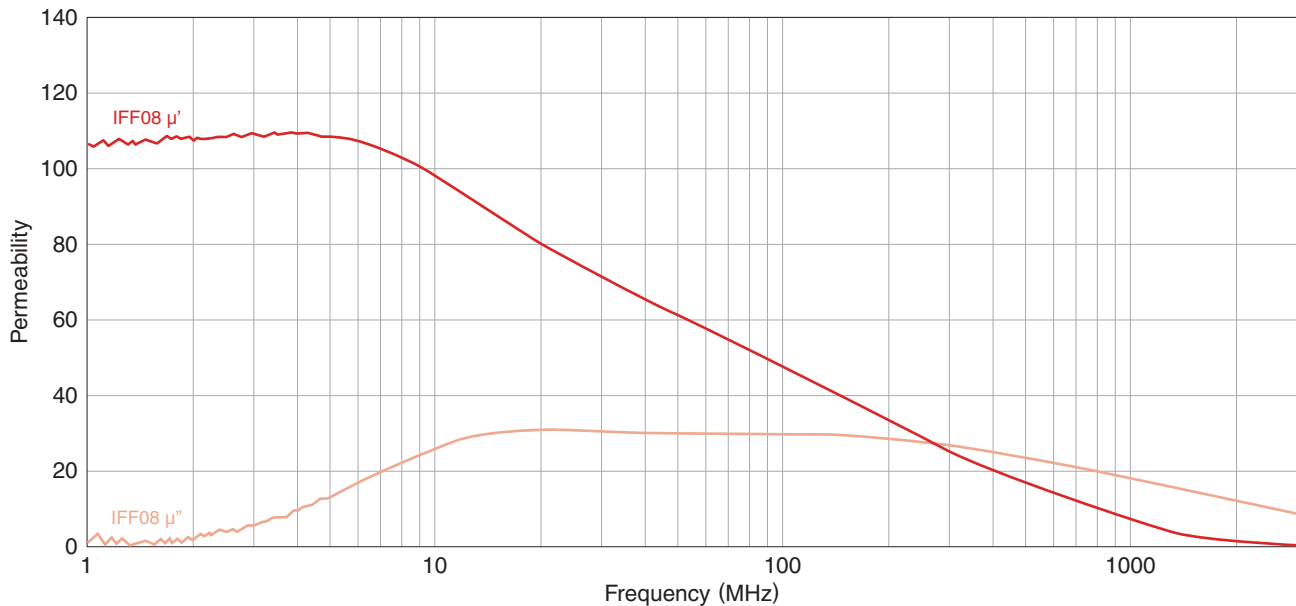
# IFF series (Heat-resistant Type)

## MATERIAL CHARACTERISTIC

### MATERIAL CHARACTERISTIC SPECIFICATION TABLE

Material name	Recommended specification frequency range	Relative permeability				Surface resistivity ( $\Omega$ /sq.)typ.	Thermal conductivity (W/m · K)	Saturated magnetic flux density (mT)	Curie temperature (°C)	Relative Permittivity (at 1MHz)typ.	Operating temperature (°C)
		[at 1MHz] $\mu'$	$\mu''$	[at 13.56MHz] $\mu'$	$\mu''$						
IFF08	10MHz to 3GHz	102	5	80	30	1M	1.5	150 [H=1194A/m]	> 500	1400	-40 to +125

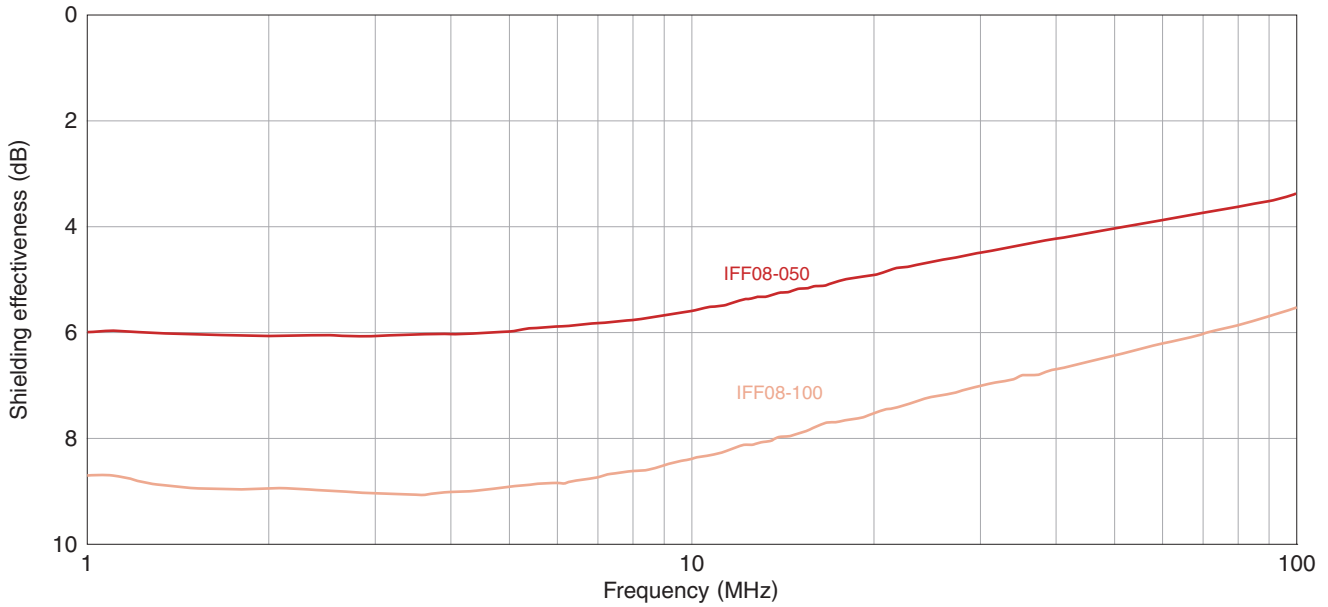
### Permeability



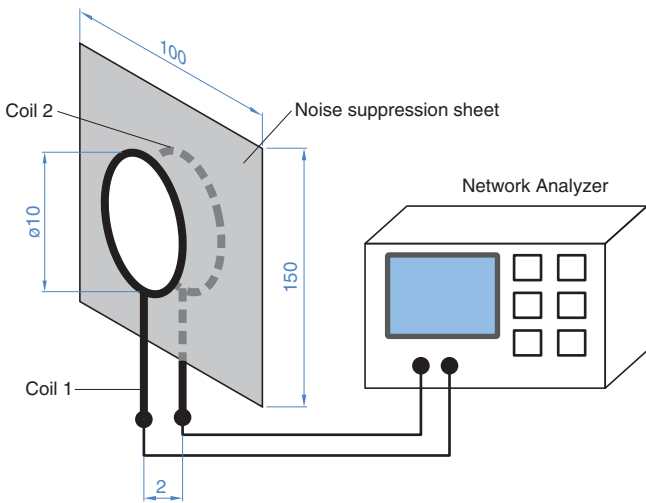
# IFF series (Heat-resistant Type)


## MATERIAL CHARACTERISTIC

### SHIELDING EFFECTIVENESS (Up to 100MHz)



### MEASUREMENT SETUP (Up to 100MHz)



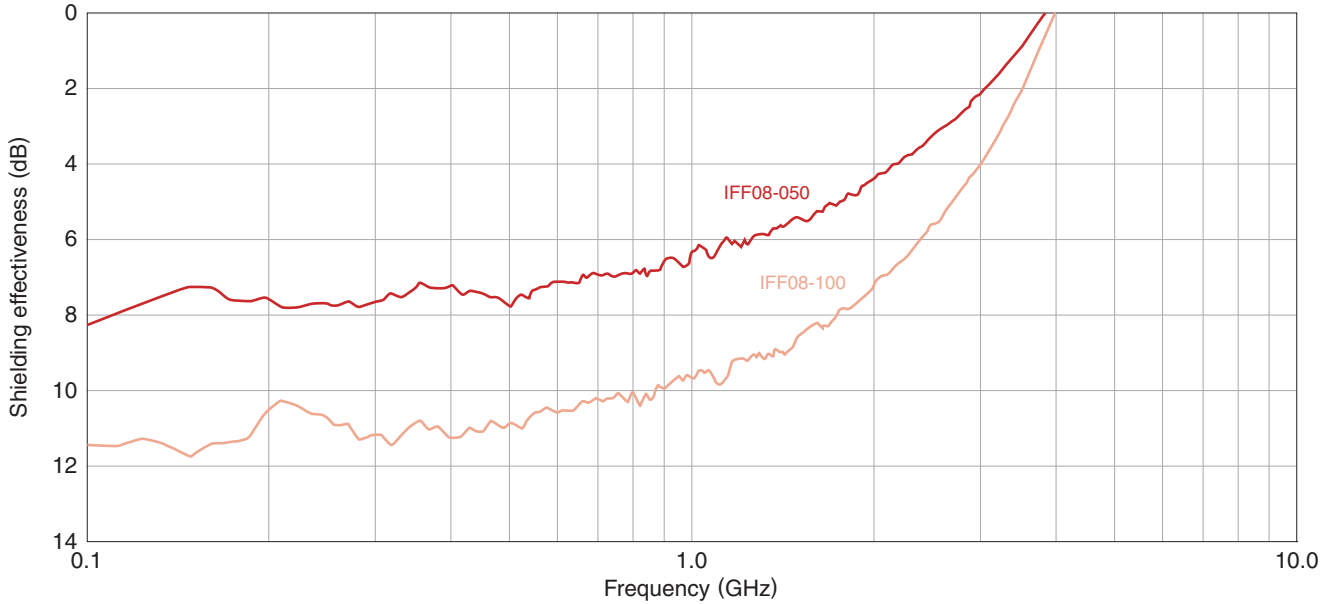
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# IFF series (Heat-resistant Type)

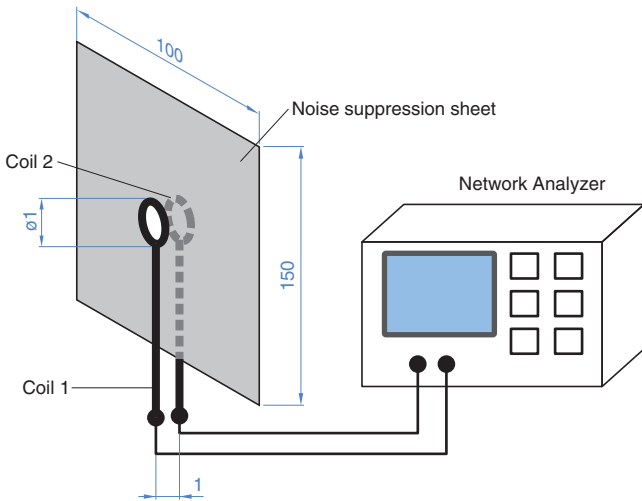
## MATERIAL CHARACTERISTIC

### SHIELDING EFFECTIVENESS (100MHz to 6GHz)\*

\* Note that there is no continuity with data below 100 MHz. Since the gap between the coils is shortened, the gain is a little increased.



### MEASUREMENT SETUP (100MHz to 6GHz)

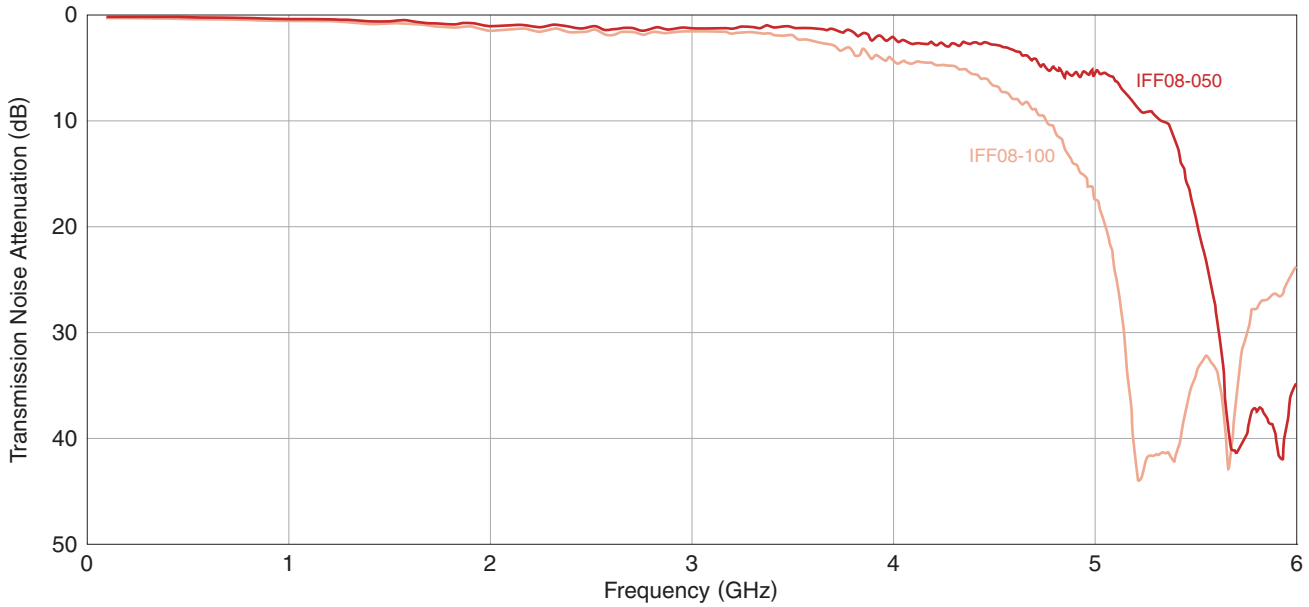


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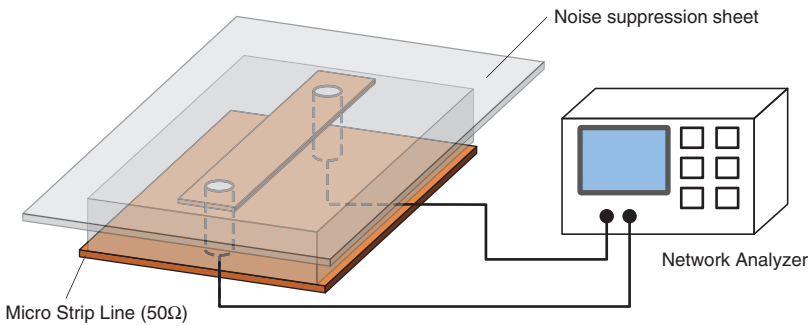
## MATERIAL CHARACTERISTIC

### TRANSMISSION NOISE ATTENUATION



### MEASUREMENT SETUP

NOTE : Refers to IEC62333-1,2 (Transmission Attenuation power ratio)

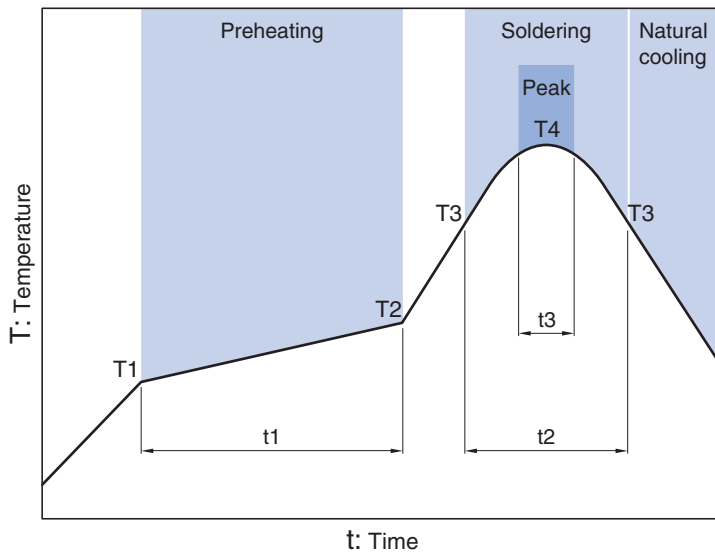


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## RECOMMENDED REFLOW PROFILE



Preheating			Soldering			
			Critical zone (T3 to T4)		Peak	
Temp.		Time	Temp.	Time	Temp.	Time
T1	T2	t1	T3	t2	T4	t3
150°C	180°C	60 to 120s	230°C	40s max.	260°C max.	Within 5s

## 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 these products.

#### REMINDERS

- The products listed in this specification are intended for use in automotive applications under normal operation and usage conditions. The products are not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality requires a more stringent level of safety or reliability, or whose failure, malfunction or defect could cause serious damage to society, person or property.

Please understand that we are not responsible for any damage or liability caused by use of the products in any of the applications below or for any other use exceeding the range or conditions set forth in this specification sheet. If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in this specification, please contact us.

- |  |  |
|--|--|
| (1) Aerospace/aviation equipment   | (8) Public information-processing equipment                                  |
| (2) Transportation equipment (electric trains, ships, etc.)                          | (9) Military equipment   |
| (3) Medical equipment (excepting Pharmaceutical Affairs Law classification Class1,2) | (10) Electric heating apparatus, burning equipment                           |
| (4) Power-generation control equipment   | (11) Disaster prevention/crime prevention equipment                          |
| (5) Atomic energy-related equipment  | (12) Safety equipment  |
| (6) Seabed equipment   | (13) Other applications that are not considered general-purpose applications |
| (7) Transportation control equipment   |  |

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.

In addition, although the products listed in this specification are intended for use in automotive applications as described above, they are not prohibited to use in general electronic equipment, whose performance and/or quality doesn't require a more stringent level of safety or reliability, or whose failure, malfunction or defect could not cause serious damage to society, person or property. Therefore, the description of this caution will be applied, when the products are used in general electronic equipment under a normal operation and usage conditions.