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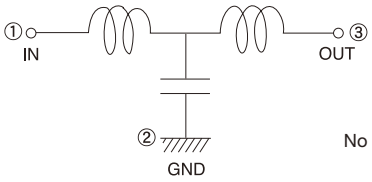
Should you have any question or inquiry on this matter, please contact our sales staff.

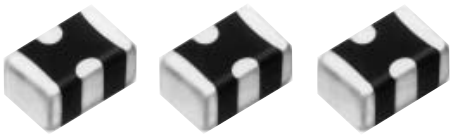
積層チップEMI除去フィルタ
MULTILAYER EMI SUPPRESSION FILTER

OPERATING TEMP.	−25〜+85℃

等価回路
Equivalent circuit



No direction



リフロー／REFLOW

特長　FEATURES

・積層コンデンサ、積層インダクタを一体化した2×1.25mmサイズのEMIフィルタです
・急峻な減衰特性の Tシリーズ と ディジタル信号の波形品位維持に効果的な TZシリーズ をラインナップ
・積層コンデンサ等と同一形状で、自動機による高速実装に最適です

・2×1.25mm size EMI filter unifying multilayer capacitor and inductor T series with rapid attenuation characteristics and TZ series with effective maintaining of waveform quality of digital signal are lined up.
・Same shape as multilayer capacitor which is suitable for high speed mounting by automatic machine.

用途　APPLICATIONS

・DVD、DSC、PDP等の映像信号に於けるノイズ対策（T シリーズ）
・パソコン、情報機器等、ディジタル信号処理回路でのノイズ対策と波形品位維持（T Z シリーズ）

・Noise countermeasure in visual signal such as DVD, DSC, PDP, etc. (T series)
・Noise countermeasure and maintaining waveform quality in digital signal processing circuit in personal computer, communication equipment, etc. (TZ series)

形名表記法　ORDERING CODE

■ T Series

① 形式

FK	積層チップEMI除去フィルタ

② 形状寸法（L × W）[mm]

2125 (0805)	2.0 × 1.25

③ 等価回路

T	T型

④ カットオフ周波数

例	
186	18 MHz
256	25 MHz

⑤ 減衰特性

例	
A	シャープな減衰特性

⑥ 定格電圧 [V]

L	10

⑦ 包装

−T	リールテーピング

⑧ 当社管理番号

△	標準品

△＝スペース

F K 2 1 2 5 T 2 5 6 A L − T ○
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Type

FK	Multilayer EMI Suppression Filter

② External dimensions (L×W) [mm]

2125 (0805)	2.0×1.25

③ Equivalence circuit

T	T type

④ Cutoff frequency

example	
186	18 MHz
256	25 MHz

⑤ Characteristic

example	
A	Sharp

⑥ Rated voltage [V]

L	10

⑦ Packaging

–T	Tape&Reel

⑧ Internal code

△	Standard products

△ = Blank space

■ TZ Series

① 形式

FK	積層チップEMI除去フィルタ

② 形状寸法（L×W）[mm]

2125 (0805)	2.0×1.25

③ 等価回路

T	T型

④ 公称インピーダンス [100MHz]

Z700	70Ω
Z101	100Ω
Z201	200Ω

⑤ 公称静電容量 [1MHz]

C170	17pF
C500	50pF
C850	85pF

⑥ 包装

T	リールテーピング

⑦ 当社管理番号

△	標準品

△＝スペース

F K 2125 T Z201C850 T ○
① ② ③ ④ ⑤ ⑥ ⑦

① Type

FK	Multilayer EMI Suppression Filter

② External dimensions (L×W) [mm]

2125 (0805)	2.0×1.25

③ Equivalence circuit

T	T type

④ Nominal Impedance [100MHz]

Z700	70Ω
Z101	100Ω
Z201	200Ω

⑤ Nominal Capacitance [1MHz]

C170	17pF
C500	50pF
C850	85pF

⑥ Packaging

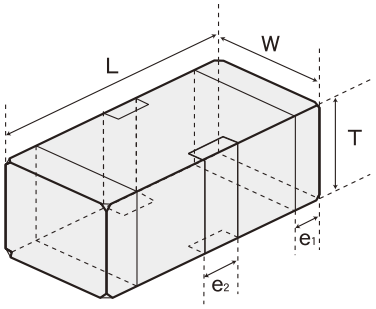
T	Tape&Reel

⑦ Internal code

△	Standard products

△ = Blank space

外形寸法　EXTERNAL DIMENSIONS

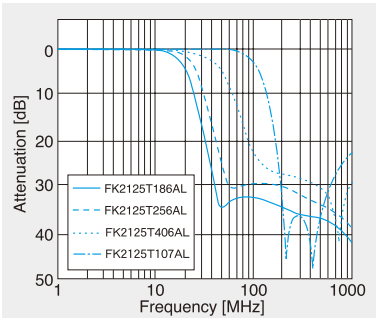


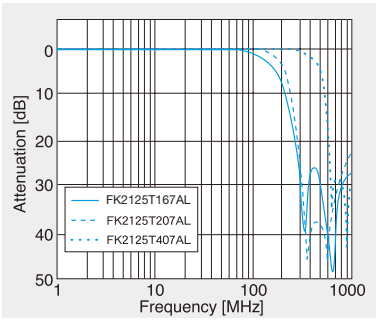
L	W	T	e1	e2
2.0±0.2 (0.079±0.008)	1.25±0.2 (0.049±0.008)	1.0±0.2 (0.039±0.008)	0.3±0.2 (0.012±0.008)	0.4±0.2 (0.016±0.008)

Unit：mm（inch）

特性図　ELECTRICAL CHARACTERISTICS

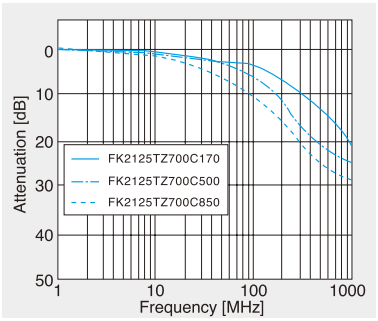
●Tシリーズ

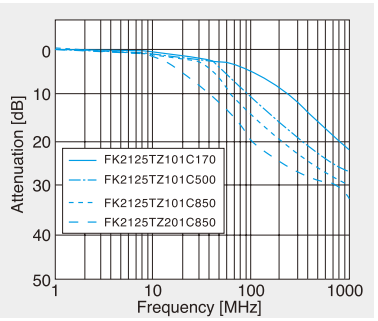




形　名 Ordering code		EHS (Environmental Hazardous Substances)	カットオフ周波数 Cut-Off Frequency	減衰特性 挿入損失 insertion-loss [1MHz]	減衰量 attenuation [50MHz]	[100MHz]	[200MHz]	[350MHz]	[500MHz]	[600MHz]	[800MHz]	直流抵抗 DC resistance max.	定格電圧 Rated voltage	定格電流 Rated current	絶縁抵抗 Insulation resistance
FK2125T186AL		RoHS	18MHz±3.6MHz	≦1.0dB	≧20dB	≧20dB	–	–	≧20dB	–	–	2Ω	10V DC	100mA DC	≧30MΩ
FK2125T256AL		RoHS	25MHz±5MHz		≧15dB	≧20dB	–	–	≧20dB	–	–				
FK2125T406AL		RoHS	40MHz±10MHz		–	≧15dB	≧20dB	–	≧20dB	–	–				
FK2125T107AL		RoHS	100MHz±20MHz		–	–	≧20dB	–	≧20dB	–	–	3Ω			
FK2125T167AL		RoHS	160MHz±30MHz		–	–	–	≧20dB	≧20dB	–	–	2Ω			
FK2125T207AL		RoHS	200MHz±40MHz		–	–	–	≧20dB	≧20dB	–	–				
FK2125T407AL		RoHS	400MHz±80MHz		–	–	–	–	–	≧20dB	≧20dB				

●TZシリーズ





形　名 Ordering code		EHS (Environmental Hazardous Substances)	インピーダンス (端子1-3) impedance [100MHz]	静電容量 (端子1-2) capacitance [1MHz]	直流抵抗 DC resistance max.	定格電圧 Rated voltage	定格電流 Rated current	絶縁抵抗 Insulation resistance
FK2125TZ700C170		RoHS	70Ω±30%	17pF±20%	2Ω	10V DC	100mA DC	≧30MΩ
FK2125TZ700C500		RoHS	70Ω±30%	50pF±20%				
FK2125TZ700C850		RoHS	70Ω±30%	85pF±20%				
FK2125TZ101C170		RoHS	100Ω±30%	17pF±20%				
FK2125TZ101C500		RoHS	100Ω±30%	50pF±20%				
FK2125TZ101C850		RoHS	100Ω±30%	85pF±20%				
FK2125TZ201C850		RoHS	200Ω±30%	85pF±20%				

セレクションガイド Selection Guide P.16
アイテム一覧 Part Numbers P.443
特性図 Electrical Characteristics P.443
梱包 Packaging P.444
信頼性 Reliability Data P.446
使用上の注意 Precautions ※

etc

※営業窓口に御相談ください。Please contact our Sales Department.

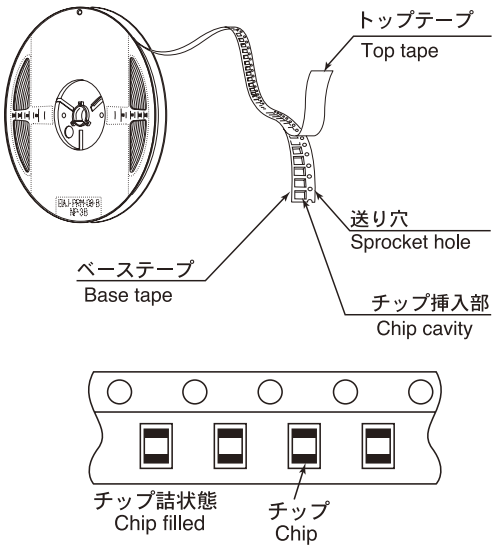
①最小受注単位数　Minimum Quantity

テーピング梱包

Type	製品厚み Thickness [mm]	標準数量 Standard quantity [pcs]
		エンボステープ Embossed tape
FK 2125（0805）	1.0 (0.039)	3000

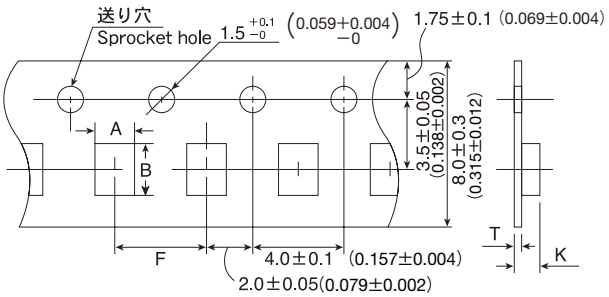
②テーピング材質　Tape material

エンボステープ
Embossed Tape



③テーピング寸法　Taping dimensions

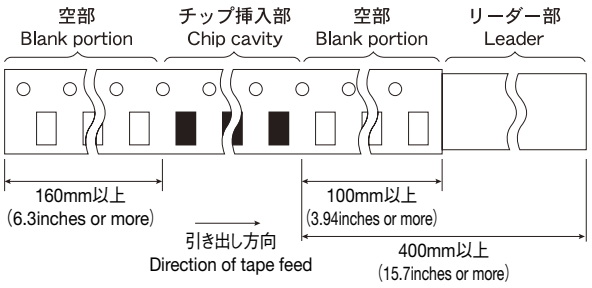
エンボステープ（8mm幅）Embossed tape（0.031inches wide）



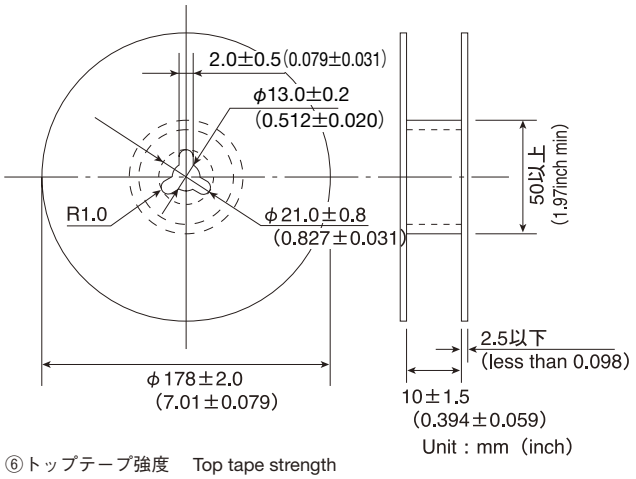
形式 Type	チップ挿入部 Chip cavity		挿入ピッチ Insertion pitch	テープ厚み Tape thickness	
	A	B	F	K	T
FK 2125 (0805)	1.5±0.2 (0.059±0.008)	2.3±0.2 (0.091±0.008)	4.0±0.1 (0.157±0.004)	2.0 max. (0.079) max.	0.3 max. (0.012) max.

Unit：mm（inch）

④リーダー部／空部　Leader and Blank portion



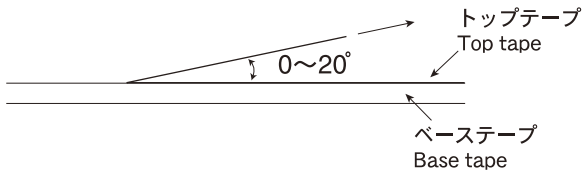
⑤リール寸法　Reel size



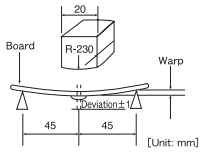
Unit：mm（inch）

⑥トップテープ強度　Top tape strength

トップテープのはがし力は下図矢印方向にて0.1～0.7Nとなります。
The top tape requires a peel;-off force of 0.1～0.7N in the direction of the arrow as illustrated below.

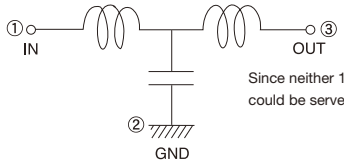


MULTILAYER EMI SUPPRESSION FILTER

Item	Specified	Test Methods and Remarks
1. Operating Temperature Range	−25 to +85℃	
2. Storage Temperature Range	−25 to +85℃	
3. Rated Voltage	10V DC	
4. Rated Current	100mA DC	
5. Cutoff frequency (T Series)	18MHz±3.6MHz 25MHz±5MHz 40MHz±10MHz 100MHz±20MHz 160MHz±30MHz 200MHz±40MHz 400MHz±80MHz	Measuring equipment : HP8753D (or its equivalent) Measuring source : 0dBm Input-Output impedance : 50Ω
6. Impedance (TZ Series)	70Ω±30% 100Ω±30% 200Ω±30%	Measuring frequency : 100MHz Measuring equipment : HP4291A (or its equivalent) Measuring jig : HP16192A Measuring source : −20dBm
7. Capacitance (TZ Series)	17pF±20% 50pF±20% 85pF±20%	Measuring equipment : HP4194A (or its equivalent) Measuring voltage : 0.5V Measuring frequency : 1MHz Capacitance measurement between Terminals 1 and 2.
8. DC Resistance	2Ω max. 3Ω max. (FK2125T107AL)	Conduct measurement between Terminals 1 and 3.
9. Insulation Resistance	30MΩ min.	Conduct measurement between Terminals 1 and 2. Applied voltage : 10VDC
10. Resistance to Flexure of Substrate	No mechanical damage.	Warp: 2mm Testing board: glass epoxy-resin substrate Thickness: 0.8mm 
11. Solderability	At least 75% of terminal electrode is covered by new solder.	Solder temperature: 230±5℃ Duration: 4±1 sec. Preheating temperature: 150 to 180℃ Preheating time: 2 to 3 min. Flux: Immersion into methanol solution with colophony for 3 to 5 sec.
12. Resistance to Soldering	No significant abnormality in appearance. Circuit diagram	Solder temperature: 260± 5℃ Duration : 10± 0.5 sec. Preheating temperature : 150 to 180℃ Preheating time: 2 to 3 min Flux: Immersion into methanol solution with colophony for 3 to 5 sec.
13. Thermal Shock	No mechanical damage. Insulation resistance (between 1 and 2) : 20MΩ min. DC resistance (between 1 and 3): 2Ω max. 3Ω max. (FK2125T107AL)	Conditions for 1 cycle Step1: Minimum operating temperature +0／−3℃ 30±3 min Step2: Room temperature 2 to 3 min Step3: Maximum operating temperature +0／−3℃ 30±3 min Step4: Room temperature 2 to 3 min Number of cycles: 5 Recovery: 2 to 3 hrs of recovery under the standard condition after the test.
14. Damp Heatfsteady stateg	No mechanical damage. Insulation resistance (between 1 and 2): 20MΩ min. DC resistance (between 1 and 3): 2Ω max. 3Ω max. (FK2125T107AL)	Temperature : 40±2℃ Humidity : 90 to 95%RH Duration : 500±12 hrs Recovery : 2 to 3 hrs of recovery under the standard condition after the removal from test chamber.
15. Loading under Damp Heat	No mechanical damage. Insulation resistance (between 1 and 2): 20MΩ min. DC resistance (between 1 and 3): 2Ω max. 3Ω max. (FK2125T107AL)	Temperature : 40±2℃ Humidity : 90 to 95%RH Applied voltage : Rated voltage (between 1 and 2) Applied current : Rated current (between 1 and 3) Duration : 500±12 hrs Recovery : 2 to 3 hrs of recovery under the standard condition after the removal from test chamber.
16. Loading at High Temperature	No mechanical damage. Insulation resistance (between 1 and 2): 20MΩ min. DC resistance (between 1 and 3): 2Ω max. 3Ω max. (FK2125T107AL)	Temperature : 85±2℃ Applied voltage : Rated voltage (between 1 and 2) Applied current : Rated current (between 1 and 3) Duration : 500±12 hrs Recovery : 2 to 3 hrs of recovery under the standard condition after the removal from test chamber.

Note on standard condition : "standard condition" referred to herein is defined as follows :
5 to 35℃ of temperature, 45 to 85% relative humidity and 86 to 106kPa of air pressure.
When there are questions concerning measurement results :
In order to provide correlation data, the test shall be conducted under condition of 20±2℃ of temperature, 60 to 70% relative humidity and 86 to 106kPa of air pressure.
Unless otherwise specified, all the tests are conducted under the "standard condition."

※Circuit diagram



Since neither 1 nor 3 is directional, either could be served as the IN terminal.

7 EMI FILTERS (3 TERMINALS)