

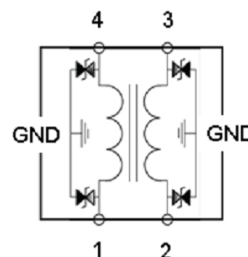
Engineering Specification

TCFE03025H90002A

Features and Application

TCFE03025H90002A is a thin film common mode filter with additional ESD protection. It is designed to suppress common mode noise for high speed differential data lines, such as MIPI. The ESD protection of IEC61000-4-2 level4 in high speed differential data lines is also provided.

These differential interfaces can be used in Mobile phone, Notebooks, Tablet PC & Digital Camera, etc.



ABSOLUTE MAXIMUM RATINGS

PARAMETER	PARAMETER	RATING	UNITS
Rated Voltage	VDC	5	V
Rated Current	IDC	100	mA
Lead Soldering Temperature	TSOL	260(10sec.)	°C

ELECTRICAL CHARACTERISTICS

PARAMETER	MIN	TYP	MAX	UNITS
Common Mode Impedance (at 100MHz)	67.5	90	112.5	Ω
Cut-off Frequency		3.0		GHz
DC Resistance	1.8	2.7	3.5	Ω
Insulation Resistance	10			M Ω
Capacitance (at 1MHz, any pin to ground)		0.6		pF
Leakage Current (at 5V, any pin to ground)			1	μ A

Engineering Specification

TCFE03025H90002A

PART NUMBER CODE

<u>TCFE</u>	<u>03025</u>	<u>H</u>	<u>900</u>	<u>02</u>	<u>A</u>
1	2	3	4	5	6

- 1: Product Type : TCFE= Thin Film Common Mode Filter ESD
- 2: EIA Dimension Code
- 3: Speed Identification Code: H=High Speed
- 4: Impedance(at 100MHz):900=90Ω
- 5: Line Code:02=2 lines
- 6: Specialized Specification Code

TYPICAL CHARACTERISTIC

Fig1. IMPEDANCE vs. FREQUENCY CHARACTERISTICS

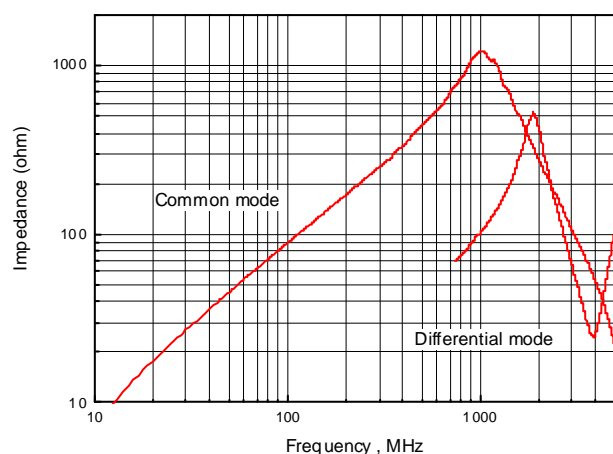
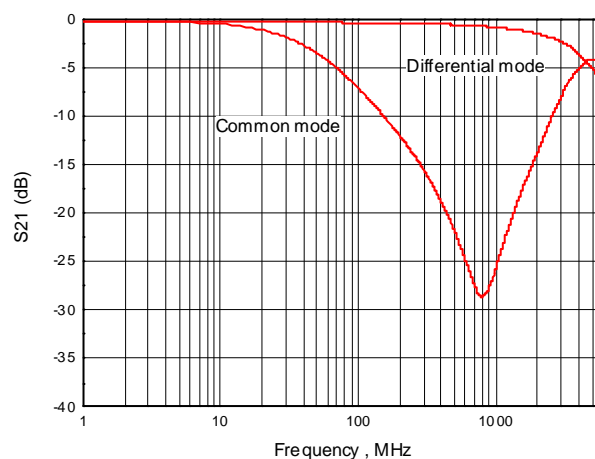


Fig2. INSERTION LOSS vs. FREQUENCY CHARACTERISTICS

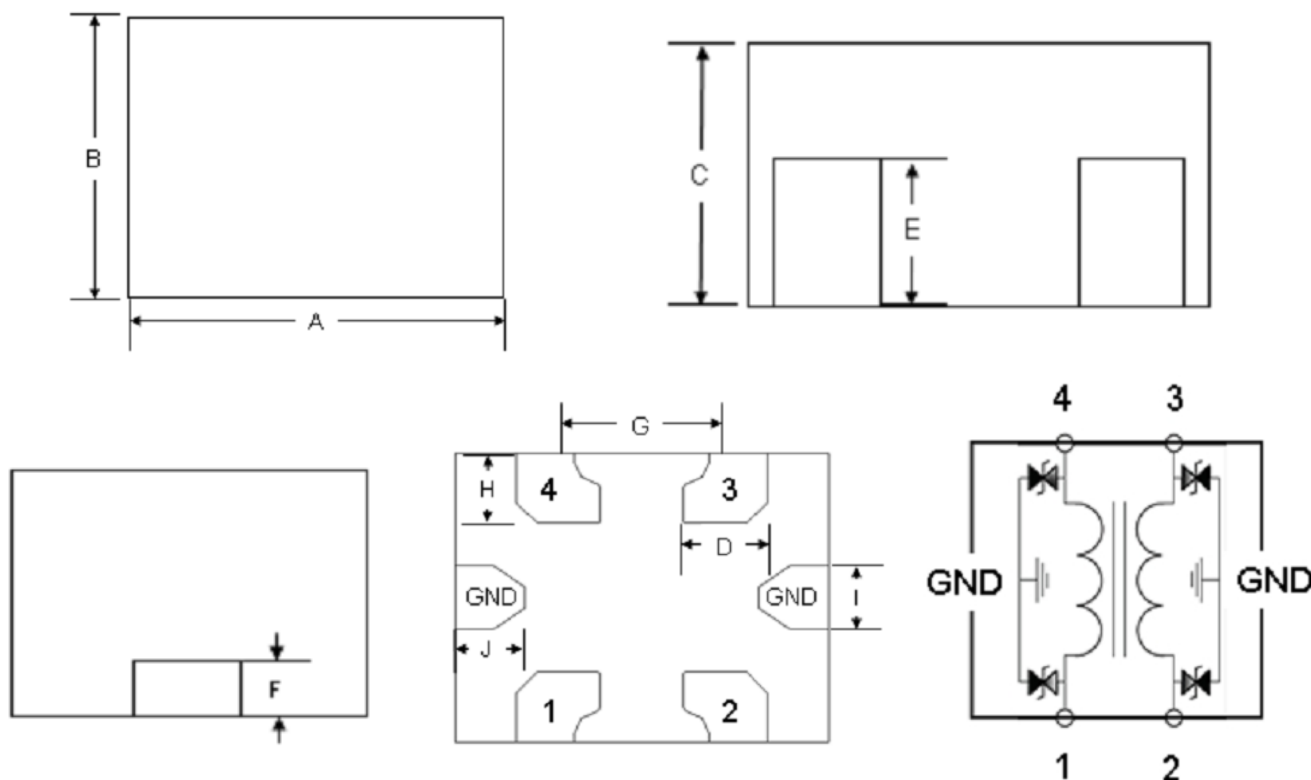


Test Instrument : HP4291A Impedance/Material Analyzer
Test Instrument : Agilent E5071C ENAL-L Network Analyzer

Engineering Specification

TCFE03025H90002A

SHARES AND DIMENSIONS

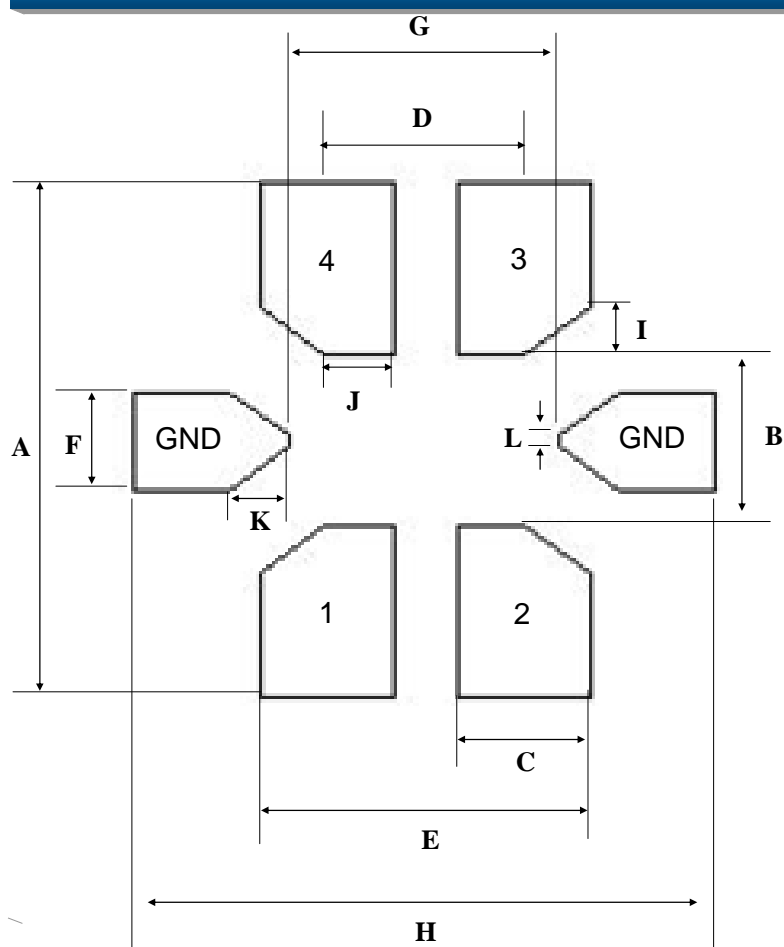


Series	A	B	C	D	E	F	G	H	I	J
TCFE 03025	0.8±0.05	0.6±0.05	0.5±0.05	0.17±0.1	0.4±0.1	0.08±0.05	0.4±0.1	0.15±0.1	0.15±0.1	0.15±0.1

Engineering Specification

TCFE03025H90002A

LAND LAYOUT

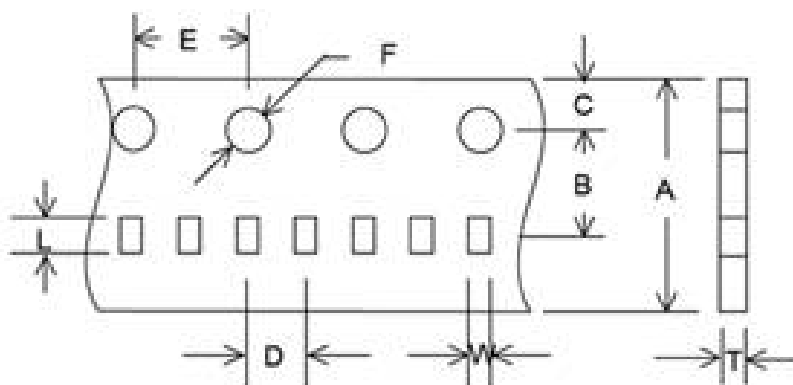


	mm
A	1.05
B	0.35
C	0.27
D	0.4
E	0.67
F	0.2
G	0.55
H	1.18
I	0.097
J	0.136
K	0.121
L	0.025

TAPE AND REEL SPECIFICATIONS / T

Type : Paper Carrier

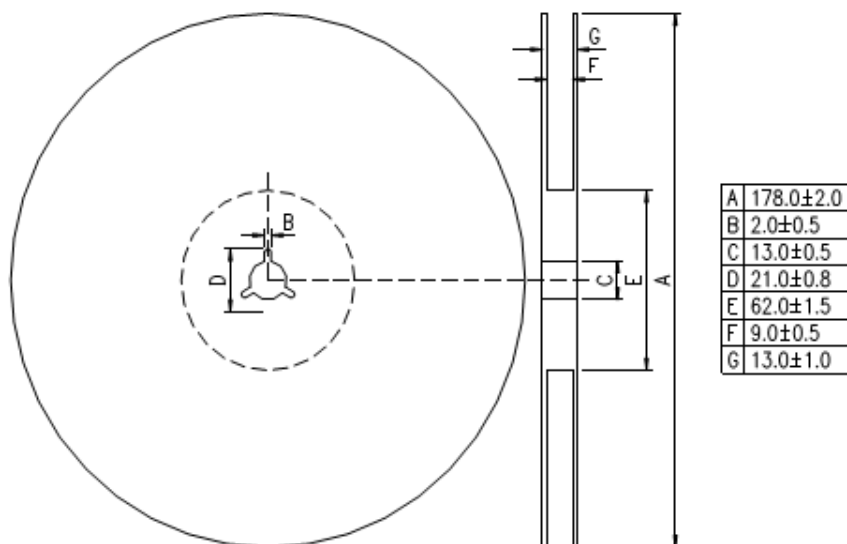
Unit : mm



A	8±0.1
B	3.5±0.05
C	1.75±0.05
D	2±0.05
E	4±0.1
F	1.55±0.05
L	1.04±0.03
W	0.78±0.03
T	0.60±0.03

Engineering Specification

TCFE03025H90002A

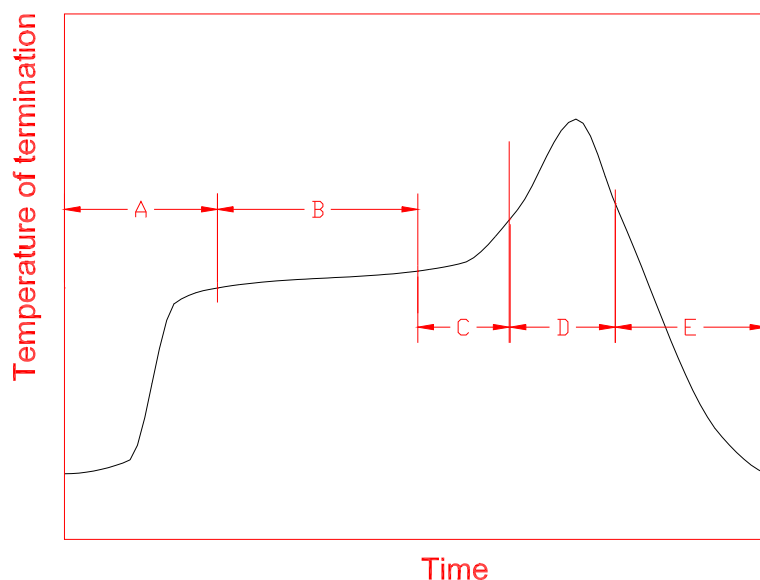


*Standard quantity : 10,000 pcs/Reel

Engineering Specification

TCFE03025H90002A

RECOMMENDED REFLOW SOLDERING



A	1 st rising temperature	The normal to Preheating temperature	30s to 60s
B	Preheating	140°C to 160°C	60s to 120s
C	2 nd rising temperature	Preheating to 200°C	20s to 40s
D	Main heating	if 220°C	50s ~ 60s
		if 230°C	40s ~ 50s
		if 240°C	30s ~ 40s
		if 250°C	20s ~ 40s
		if 260°C	20s ~ 40s
E	Regular cooling	200°C to 100°C	1°C/s ~ 4°C/s

- According to J-STD-020C