

# Common Mode Filter 2 Line 12~90Ω 100mA

SIC1-TCI Series

MERITEK

## FEATURE

- Operating Temperature: -25°C ~ +85°C
- Suppresses noise for high speed differential data lines
- Compact construction design
- Applications: Display Port, e-SATA, USB 2.0, USB 3.0, HDMI, MIPI, and MHL,USB3.1



## PART NUMBERING SYSTEM

**SIC** **1** **2** **12RJ** **A1** **TCI**  
(1) (2) (3) (4) (5) (6)

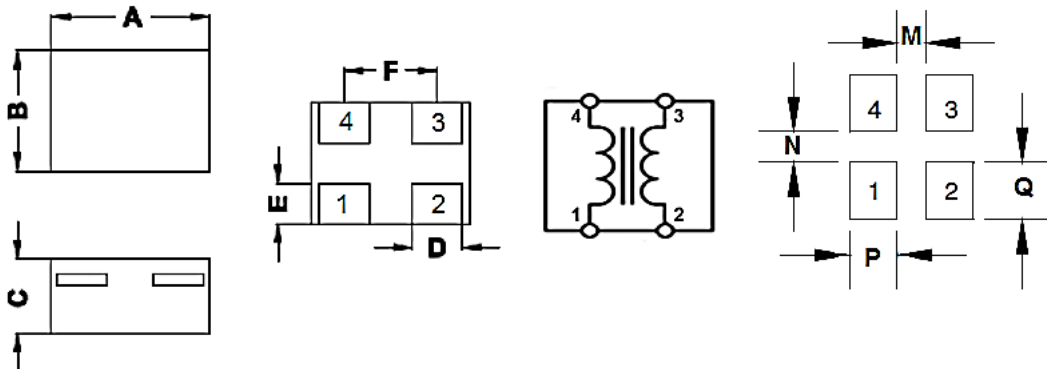


No	Item	Code	Description	Series Reference
(1)	Meritek Series	SIC	Common Mode Filter series	2 Line Thin Film Type
(2)	Dimension Code	1	1: 0.67x0.52mm	WidthxLength mm
(3)	Line	2	2: 2 Lines	Number of Lines
(4)	Impedance/Tolerance	12RJ	12RJ: 12 Ω ±5Ω	90RZ: 90 Ω -27/+22.5Ω
(5)	Rated Current	A1	A1:100mA	Max Rated Current
(6)	Internal Code	TCI	Internal Control Code	Internal or Project Reference

## ELECTRICAL CHARACTERISTICS

Part Number	Impedance @100MHz (Ω)	Tolerance (Ω)	Max DC Resistance (Ω)	Max. Rated Current (mA)	Rated Voltage (V)	Insulation Resistance (MΩ) Min.	Cut off Frequency (GHz)
SIC1212RJA1TCI	12	±5Ω	2.00	100	5	10	10
SIC1290RZA1TCI	90	-27/+22.5Ω	6.00	100	5	10	3

## DIMENSIONS AND PCB LAND LAYOUT



Series	A	B	C	D	E	F	M	N	P	Q
SIC1-TCI	±0.05	±0.05	±0.05	±0.05	±0.1	±0.05	0.15	0.16	0.25	0.30

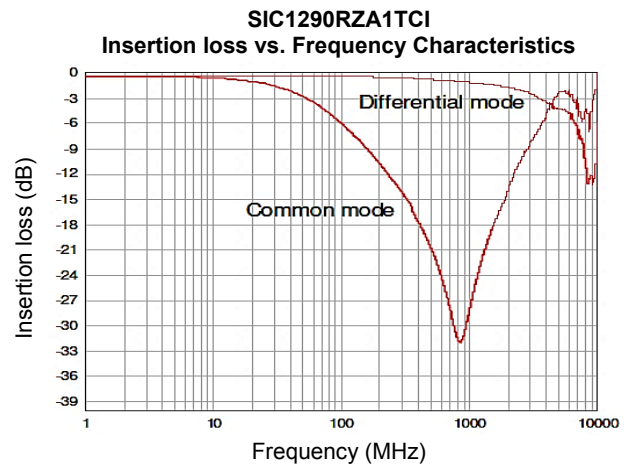
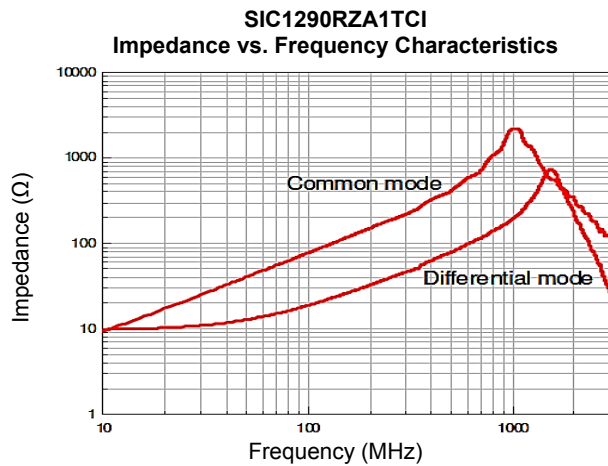
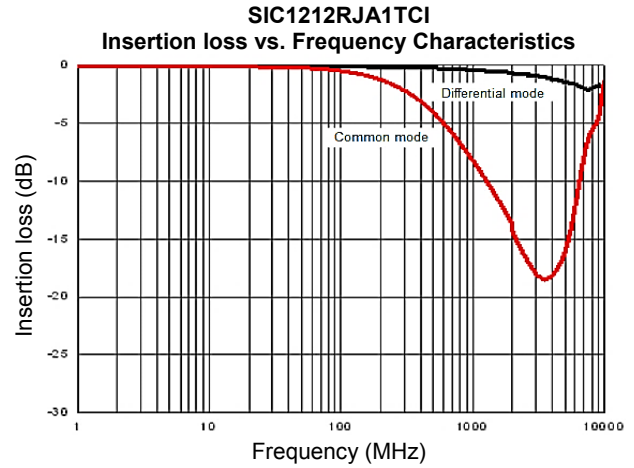
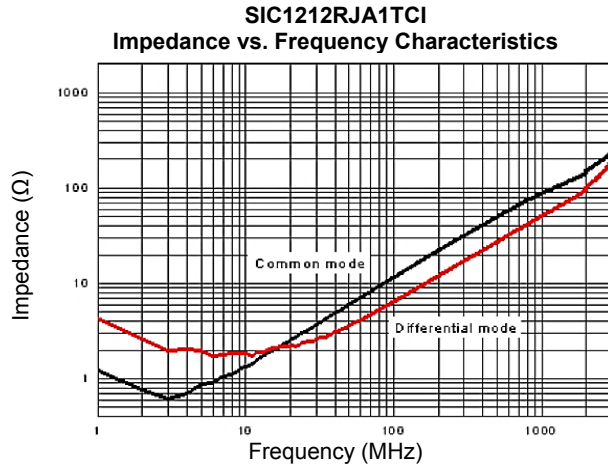
Unit: mm

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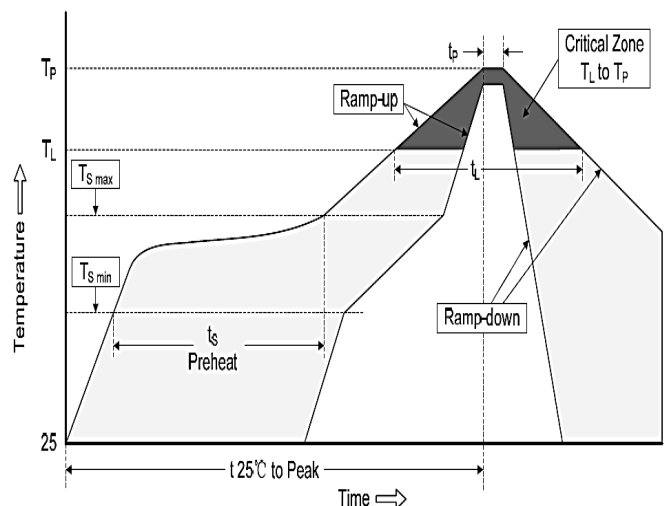
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## CHARACTERISTIC CURVES



## RECOMMENDED SOLDERING PROFILES

Reflow Condition		
Pre Heat	Temp. Min $T_{s(min)}$	140°C
	Temp. Max $T_{s(max)}$	160°C
	Time (min. to max.) ( $t_s$ )	60~120 seconds
Average ramp up rate ( $T_L$ ) to peak		3°C/second Max.
$T_{s(max)}$ to $T_L$ (Ramp-up rate)		3°C/second Max.
Reflow	Temp. ( $T_L$ )	200°C Min.
	Time (min. to max.) ( $t_L$ )	20~40 seconds
Peak Temperature ( $T_P$ )		220~260°C
Time within 5°C of actual peak Temperature ( $t_p$ )		≥30 seconds
Ramp-down Rate		4°C/second Max.
Time (25°C to Peak Temp.)		6 mins Max.



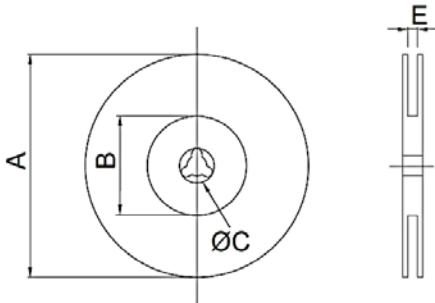
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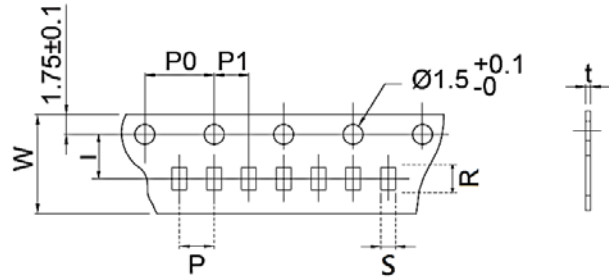
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## PACKAGING SPECIFICATION

CARRIER TAPE REELS



TAPE DIMENSION (mm)



Series	Reel Dimension (mm)				Tape Dimensions (mm)					Parts Per Reel
	A ±2.0	B ±1.5	C ±0.8	E ±0.5	W ±0.10	P ±0.05	P0 ±0.10	P1 ±0.05	t ±0.03	
SIC1-TCI	178.0	62.0	21.0	9.0	8.00	2.00	4.00	2.00	0.42	10,000
SIC2-TCI	178.0	62.0	21.0	9.0	8.00	2.00	4.00	2.00	0.60	10,000

\*Specifications subject to change without notice.