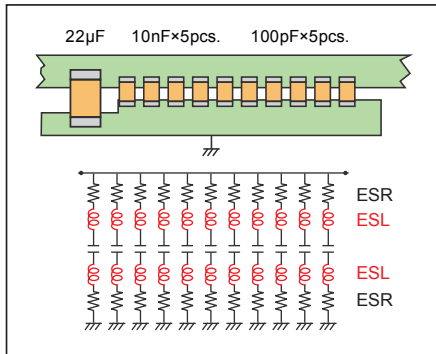


# Reducing the Number of Capacitors and Noise by 3-Terminal Capacitors

■ Example <1> MLCC\* 11pcs ( $22\mu\text{F} + 10\text{nF} \times 5\text{pcs} + 100\text{pF} \times 5\text{pcs}$ ) → Chip Type 3-Terminal Capacitors  $10\mu\text{F}$

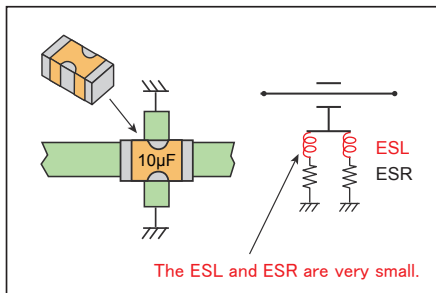
\*MLCC = Multilayer Ceramic Capacitors

MLCC 11pcs Parallel Connection

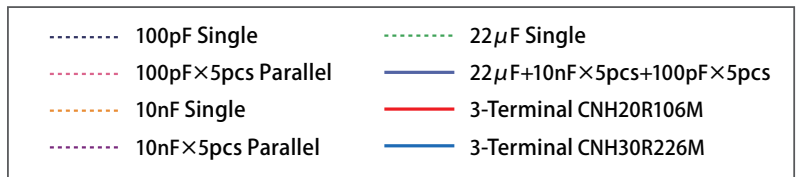
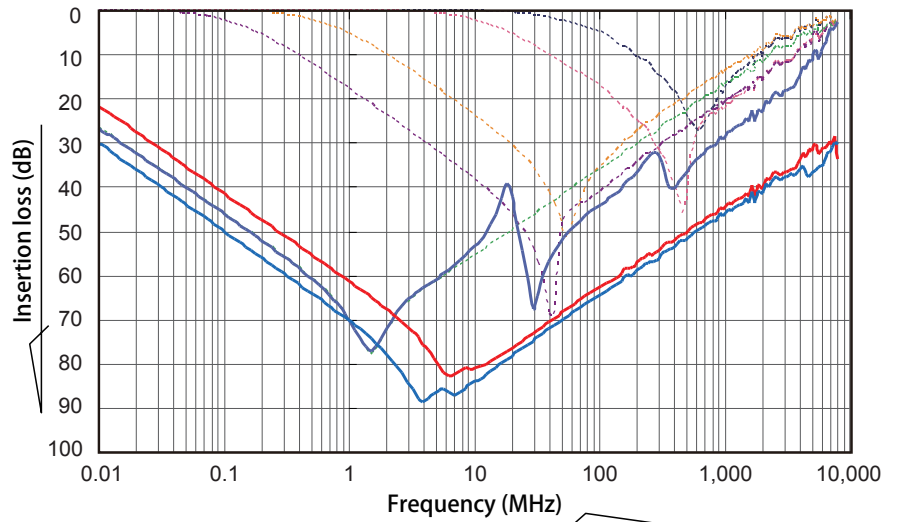


Number of Capacitors  
1/10

Chip Type 3-Terminal Capacitor  $10\mu\text{F}$

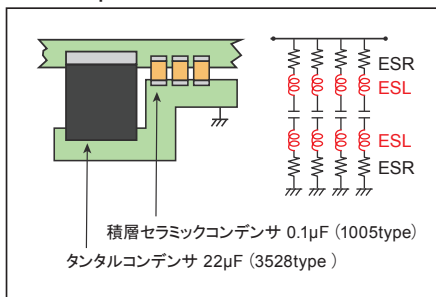


Insertion Loss

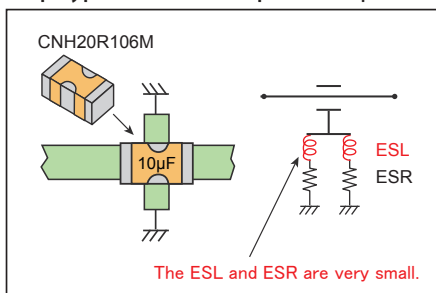


■ Example <2> Tantalum Capacitor  $22\mu\text{F}$  + MLCC  $0.1\mu\text{F} \times 3\text{pcs}$  → Chip Type 3-Terminal Capacitors  $10\mu\text{F}$

Tantalum Capacitor + MLCC 3pcs Parallel Connection



Chip Type 3-Terminal Capacitor  $10\mu\text{F}$



Insertion Loss

