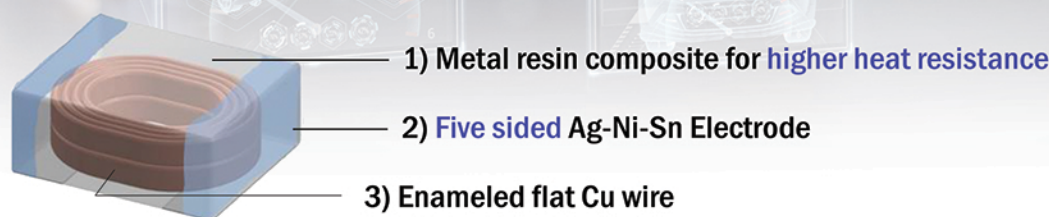


Metal Wire-Wound Chip Type: ME Series

TAIYO YUDEN's new MCOIL™ ME-V and ME-F series offers great mechanical strength, due to the improved magnetic core and bonding strength to PCB, as well as high heat resistance using new metal materials. Good for automotive body, information systems, power train and safety systems. AEC-Q200 qualified.

Structural Feature



ME-V Series (2016 / 2520)

<Automotive Grade for Body & Information System>

AEC-Q200

Under Development

Part Number	L [μH] *1	L Tole. [%]	DCR Typ.(Max.) [mΩ]	Rated Current Typ.(Max.) [A]		
				Idc1 ΔL/L = -30%*2	Idc2 ΔT = 20degC*3	Idc2 ΔT = 40degC*4
MEMK2016TR47MGKNV	0.47	±20	23 (28)	5.4 (4.6)	3.0 (2.7)	3.9 (3.6)
MEMK2016T1R0MGKNV	1.0	±20	39 (45)	3.7 (2.7)	2.3 (2.1)	3.0 (2.8)
MEMK2016T2R2MGKNV	2.2	±20	105 (120)	2.7 (1.9)	1.4 (1.3)	1.8 (1.7)
MEMK2016T4R7MGKNV	4.7	±20	208 (240)	1.6 (1.4)	1.0 (0.9)	1.3 (1.2)
MEMK2520TR15MGKNV	0.15	±20	7 (9)	12.1 (10.2)	5.5 (4.9)	7.5 (6.7)
MEMK2520TR47MGKNV	0.47	±20	15 (18)	6.5 (5.9)	4.0 (3.7)	5.4 (5.0)
MEMK2520T1R0MGKNV	1.0	±20	35 (42)	4.7 (3.8)	2.6 (2.4)	3.5 (3.2)
MEMK2520T1R5MGKNV	1.5	±20	47 (54)	3.5 (3.1)	2.2 (2.1)	3.0 (2.8)
MEMK2520T2R2MGKNV	2.2	±20	67 (77)	3.0 (2.7)	1.9 (1.7)	2.5 (2.4)
MEMK2520T3R3MGKNV	3.3	±20	114 (131)	2.5 (2.2)	1.4 (1.3)	1.9 (1.8)
MEMK2520T4R7MGKNV	4.7	±20	161 (185)	2.2 (1.9)	1.2 (1.1)	1.6 (1.5)

ME-F Series (2016 / 2520)

<Automotive Grade for Power Train & Safety System>

AEC-Q200

Under Development

Part Number	L [μH]*1	L Tole. [%]	DCR Typ.(Max.) [mΩ]	Rated Current Typ.(Max.) [A]		
				Idc1 ΔL/L = -30%*2	Idc2 ΔT = 20degC*3	Idc3 ΔT = 40degC*4
MEMK2016TR47MGKNF	0.47	±20	23 (28)	5.4 (4.6)	3.0 (2.7)	3.9 (3.6)
MEMK2016T1R0MGKNF	1.0	±20	39 (45)	3.7 (2.7)	2.3 (2.1)	3.0 (2.8)
MEMK2016T2R2MGKNF	2.2	±20	105 (120)	2.7 (1.9)	1.4 (1.3)	1.8 (1.7)
MEMK2016T4R7MGKNF	4.7	±20	208 (240)	1.6 (1.4)	1.0 (0.9)	1.3 (1.2)
MEMK2520TR15MGKNF	0.15	±20	7 (9)	12.1 (10.2)	5.5 (4.9)	7.5 (6.7)
MEMK2520TR47MGKNF	0.47	±20	15 (18)	6.5 (5.9)	4.0 (3.7)	5.4 (5.0)
MEMK2520T1R0MGKNF	1.0	±20	35 (42)	4.7 (3.8)	2.6 (2.4)	3.5 (3.2)
MEMK2520T1R5MGKNF	1.5	±20	47 (54)	3.5 (3.1)	2.2 (2.1)	3.0 (2.8)
MEMK2520T2R2MGKNF	2.2	±20	67 (77)	3.0 (2.7)	1.9 (1.7)	2.5 (2.4)
MEMK2520T3R3MGKNF	3.3	±20	114 (131)	2.5 (2.2)	1.4 (1.3)	1.9 (1.8)
MEMK2520T4R7MGKNF	4.7	±20	161 (185)	2.2 (1.9)	1.2 (1.1)	1.6 (1.5)

*1) Measured at 1.0MHz. *2) The saturation current value(Idc1) is the DC current value having inductance decrease down to 30%.(at 20°C)

*3) The temperature current value(Idc2) is the DC current value having temperature increase up to 20 deg C.(at 20°C)

*4) The temperature current value(Idc3) is the DC current value having temperature increase up to 40 deg C.(at 20°C)

This is a reference value. Absolute maximum voltage 20V DC. Target to be qualified against AEC-Q200 Grade2 qualified.

Metal Power Inductors - MCOIL™

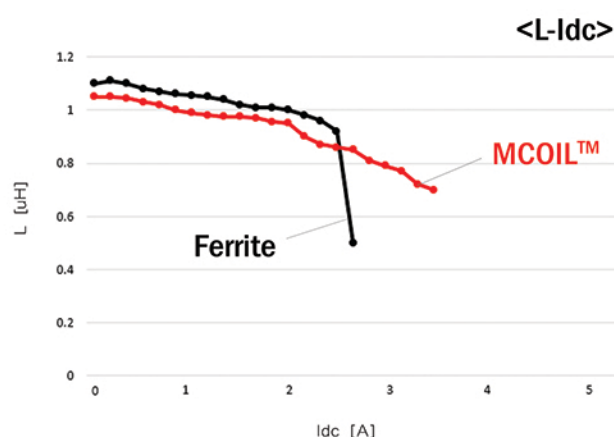
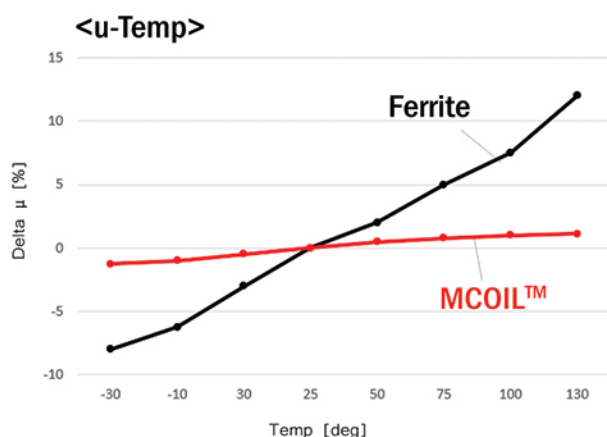
Metal Multilayer Chip Type: MC Series

Enjoy superior inductor performance with TAIYO YUDEN's MCOIL™ MC-V series. Our original metal-magnetic materials realized excellent direct current superimposition characteristics and low magnetic flux, which yield better performance in temperature dependence and L-Idc, comparing to ferrite products. Multi-layer structure process enhances flexibility of case size and profile for your convenience.

Advantage

TAIYO YUDEN's multi-layer process and unique metal material:

- High current with small package
- Flexible case size and profile
- Low magnetic flux



MC-V Series (1608 / 2012)

AEC-Q200

MP

Part Number	L [μH]	L Tole. [%]	DCR Typ.(Max.) [mΩ]	Rated Current Typ.(Max.) [A]	
				Idc1 ΔL/L = -30%*1	Idc2 ΔT = 40degC*2
MCKK1608TR24MVC*3	0.24	±20	29 (35)	3.7 (3.2)	4.1 (3.8)
MCKK1608TR33MVC*3	0.33	±20	38 (46)	3.2 (2.8)	3.7 (3.3)
MCKK1608TR47MVC	0.47	±20	54 (65)	3.0 (2.6)	3.3 (3.0)
MCKK2012TR24MVC*3	0.24	±20	17 (20)	5.5 (4.8)	5.9 (5.4)
MCKK2012TR33MVC*3	0.33	±20	25 (30)	5.1 (4.4)	4.8 (4.5)
MCKK2012TR47MVC*3	0.47	±20	34 (41)	4.4 (3.8)	4.2 (3.8)
MCKK2012T1R0MVC*3	1.00	±20	71 (85)	3.1 (2.7)	2.9 (2.7)

*1) The saturation current value(Idc1) is the DC current value having inductance decrease down to 30%.(at 20°C)
 *2) The temperature current value(Idc2) is the DC current value having temperature increase up to 40 deg C.(at 20°C)
 *3) This item is still WS/ES status. Please contact our sales person if you need more information.
 Absolute maximum voltage 20V DC. Target to be qualified against AEC-Q200 Grade3 qualified.

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