2 in 1 Inductor &
3 in 1 Inductor
(CLS series)

■ Features

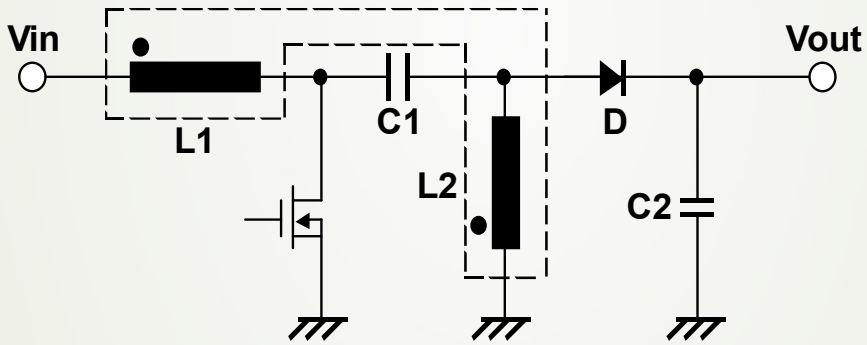


◎ Low profile, surface mount Inductor.
◎ High efficiency/Small size for Up-Down Converter.
◎ Extended battery life cycle for Portable Equipment.
◎ Storage temperature range: -40℃~+105℃
◎ Operating temperature range: -40℃~+105℃ (including coil's self-heat).
◎ RoHS Compliance.

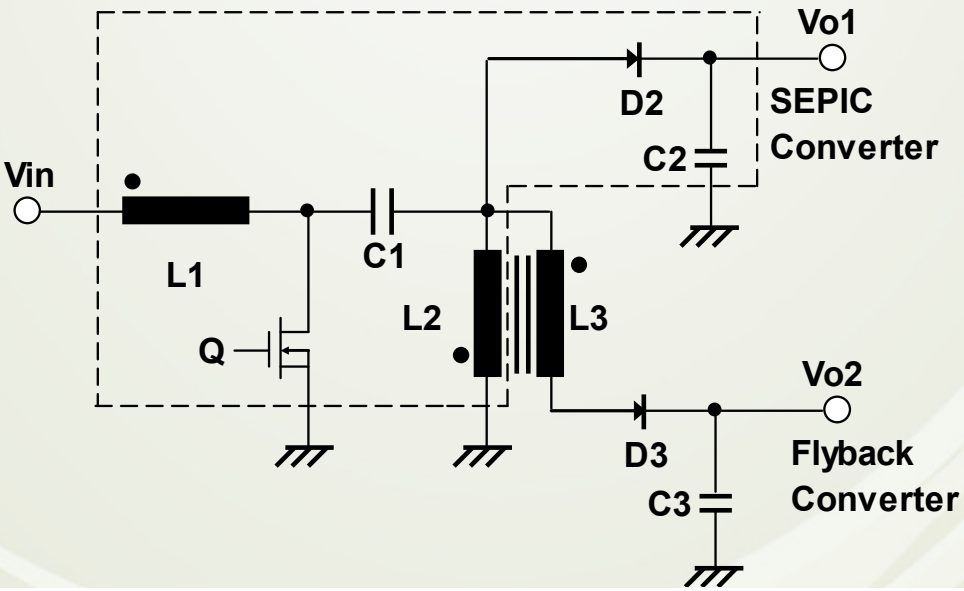
■ Applications

◎ USB charger, Portable devices with Lithium battery etc.
◎ 2 in 1 Coils for high efficiency up-down DC-DC converters.
(SEPIC, Zeta, Cuk converter).
◎ WLED Backlight Driver of LCD panel etc,.

■ Typical SEPIC schematic



■ Typical SEPIC + Flyback schematic



2 in 1 Inductor & 3 in 1 Inductor (CLS series)

■Electrical Characteristics specification.

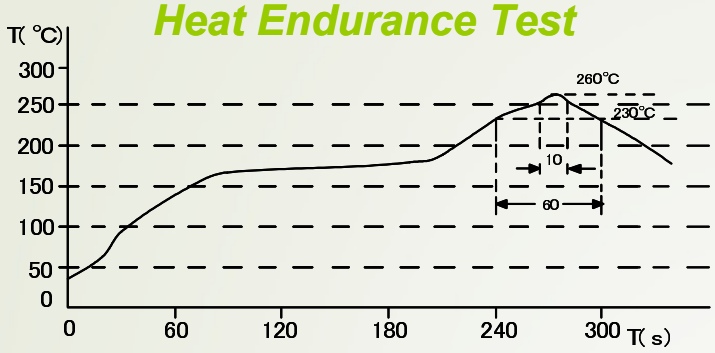
Type	Dimensions WxLxH(mm)	Inductance Range Turns Ratio(1:1)	Inductance Turns Ratio(1:1)	DC Bias Current (10%Down)	Temperature rise current (⊿t:40℃)	D.C.R.(Ω) Max.(Typ.)
CLS3D23	4x4x2.5	1.0μH～10μH	3.3μH	1.42A	1.47A	114m(91m)
			4.7μH	0.97A	1.36A	159m(127m)
			10μH	0.70A	0.94A	345m(276m)
CLS3D18	4x4x2.0	1.0μH～10μH	3.3μH	1.01A	1.35A	141m(113m)
			5.0μH	0.73A	1.17A	200m(160m)
			10μH	0.51A	0.75A	404m(323m)
CLS4D28B	5x5x3.0	2.2μH～47μH	3.5μH	1.34A	2.26A	74m(54m)
			6.8μH	0.92A	1.66A	132m(102m)
			10μH	0.80A	1.54A	190m(146m)
CLS4D23B	5x5x2.5	2.2μH～22μH	3.6μH	1.16A	2.56A	80m(60m)
			7.3μH	0.80A	1.64A	155m(121m)
			11μH	0.68A	1.23A	220m(171m)
CLS4D18	5x5x2.0	1.0μH～10μH	3.3μH	1.10A	2.30A	95m(72m)
			5.0μH	0.96A	1.80A	145m(114m)
			10μH	0.64A	1.20A	310m(240m)
CLS6D28	7x7x3.0	1.2μH～120μH	3.3μH	2.40A	3.20A	35m(27m)
			6.8μH	1.70A	2.00A	78m(60m)
			10μH	1.44A	1.80A	100m(75m)
CLS6D23	7x7x2.5	1μH～100μH	3.0μH	2.4A	1.6A	42m(34m)
			6.8μH	1.56A	0.91A	97m(78m)
			10μH	1.26A	0.80A	130m(104m)
CLS6D18	7x7x2.0	1.3μH～22μH	3.5μH	1.72A	1.20A	71m(59m)
			6.8μH	1.20A	0.81A	129m(107m)
			10μH	0.98A	0.75A	155m(129m)
CLS8D28	9x9x3.0	1.0μH～220μH	3.3μH	3.70A	4.80A	36m(29m)
			6.8μH	2.50A	3.90A	55m(44m)
			10μH	2.20A	3.10A	81m(65m)
CLS104	10.6x10.4x4.1	1.2μH～21μH	2.7μH	5.80A	4.50A	26m(21m)
			6.8μH	2.80A	3.20A	61m(49m)
			10μH	2.30A	2.40A	98m(79m)
CLS125	16x13x6.0	1.2μH～110μH	3.0μH	8.50A	8.80A	13.7m(11.5m)
			5.6μH	6.40A	6.90A	21.8m(18m)
			15μH	4.80A	4.30A	54m(45m)
CLS127	16x13x8.0	1.3μH～110μH	3.2μH	12.0A	9.00A	14.2m(11.9m)
			5.8μH	9.90A	7.00A	23.0m(19.3m)
			15μH	5.60A	4.00A	60.0m(50.8m)
CLS6D28B	7x7x3.0		3.0μH	3.00A	2.90A	–
			5.0μH	2.30A	2.40A	–
			10μH	1.50A	1.80A	–
CLS8D28B	9x9x3.0		3.0μH	4.30A	3.50A	–
			5.0μH	3.20A	3.20A	–
			10μH	2.30A	1.70A	–

※ Visit http://www.sumida.com for more information

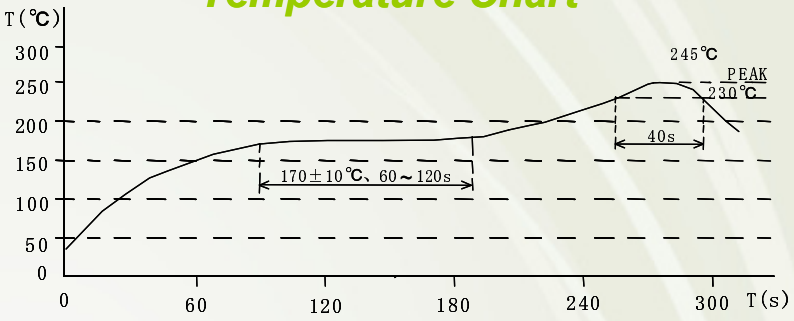
2 in 1 Inductor &
3 in 1 Inductor
(CLS series)

■ Recommendation reflow condition

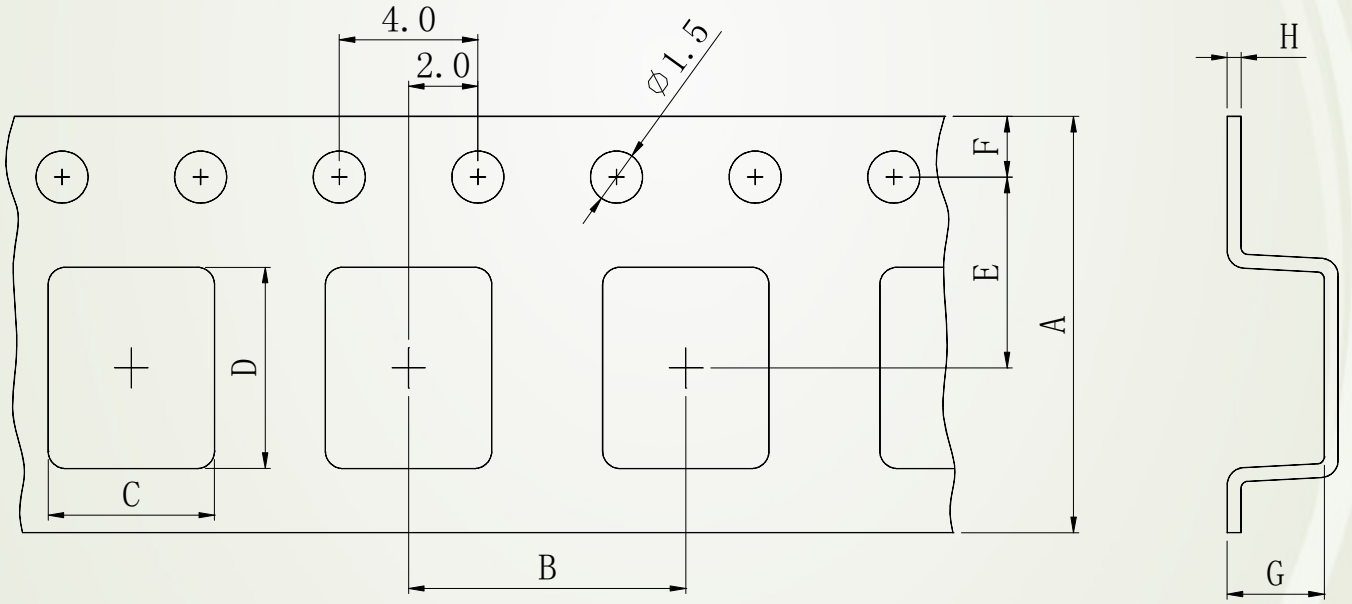
Heat Endurance Test



Temperature Chart



■ Packaging with embossed tape and Reel



※ Visit http://www.sumida.com for more information.