Initial Data & Reliability Test Comparison Data of DLW43SH series

添付資料
Appendix

弊社品番 / Murata Part No.:DLW43SH101XK2
現行工場 / Current Factory：登米村田製作所/Tome Murata Mfg. Co., Ltd.
新工場 / New Factory：Murata Electronics (Malaysia) Sdn.Bhd.

試験項目、条件 Testing Item、Condition	サンプル数 Sample Size	評価項目 Confirmed Item		Tome/Japan 現行工場 Current Factory	Malaysia 新工場 New Factory	判定値 Acceptance Value	判定 OK/NG
1. 初期値/Initial	30	L寸法/Dimension L(mm)	AVG	4.563	4.566	4.5±0.2 mm	OK
			MAX	4.58	4.58		
			MIN	4.55	4.55		
			σ	0.006	0.005		
		W寸法/Dimension W(mm)	AVG	3.227	3.240	3.2±0.2 mm	OK
			MAX	3.26	3.26		
			MIN	3.21	3.22		
			σ	0.011	0.011		
		T寸法/Dimension T(mm)	AVG	2.541	2.538	2.6±0.2 mm	OK
			MAX	2.56	2.55		
			MIN	2.53	2.49		
			σ	0.008	0.011		
	30	ｺﾓﾝﾓｰﾄﾞｲﾝﾀﾞｸﾀﾝｽ/ Common Mode Inductance(Lc) (μH) at 1MHz	AVG	108.47	106.29	100μH -30%/+50%	OK
			MAX	116.7	114.0		
			MIN	97.6	98.1		
			σ	5.068	3.864		
		絶縁抵抗/ Insulation Resistance(MΩ)	AVG	7.58E+11	7.71E+11	1.0E+07Ω MIN.	OK
			MAX	1.3E+12	9.9E+11		
			MIN	3.4E+10	5.1E+11		
			σ	-	-		
		耐電圧/Withstand Voltage(V) 125DCV		No damaged	No damaged	No damaged	OK
		直流抵抗/ DC Resistance [Rdc] (mΩ)	AVG	1.062	1.052	2.0Ω MAX.	OK
			MAX	1.19	1.07		
			MIN	1.04	1.03		
			σ	0.0348	0.0088		
2. 電極固着力/ Bending Strength 荷重/Force : 17.7N 保持時間/Hold Duration : 60seconds	30	外観/Appearance		No damaged	No damaged	No damaged	OK
3. たわみ強度/ Bending Strength 基板材質/Substrate : Glass-epoxy substrate (t=1.6mm). たわみ量/Deflection: 2mm 保持時間/Hold Duration: 60 seconds 加圧治具/Pressure jig : R230	30	外観/Appearance		No damaged	No damaged	No damaged	OK
		ｺﾓﾝﾓｰﾄﾞｲﾝﾀﾞｸﾀﾝｽ/ Common Mode Inductance(Lc) (μH) at 1MHz	AVG	110.65	108.88	100μH -30%/+50%	OK
			MAX	115.2	115.0		
			MIN	102.8	101.1		
		絶縁抵抗/ Insulation Resistance(MΩ)	AVG	2.22E+11	6.53E+11	1.0E+07Ω MIN.	OK
			MAX	7.5E+11	8.5E+11		
			MIN	2.8E+10	4.8E+11		
		耐電圧/Withstand Voltage(V) 125DCV		No damaged	No damaged	No damaged	OK
4. 落下試験/ Drop 落下方法/ Method: free fall 落下高さ/Height: 1m 落下回数/ The number of Times: 10 times	30	外観/Appearance		No damaged	No damaged	No damaged	OK
		ｺﾓﾝﾓｰﾄﾞｲﾝﾀﾞｸﾀﾝｽ/ Common Mode Inductance(Lc) (μH) at 1MHz	AVG	102.72	107.59	100μH -30%/+50%	OK
			MAX	110.8	114.6		
			MIN	93.2	100.5		
		絶縁抵抗/ Insulation Resistance(MΩ)	AVG	1.03E+12	6.84E+11	1.0E+07Ω MIN.	OK
			MAX	1.2E+12	9.3E+11		
			MIN	7.2E+11	1.3E+11		
		耐電圧/Withstand Voltage(V) 125DCV		No damaged	No damaged	No damaged	OK
5. 耐振性/Vibration 振動周波数/Oscillation Frequency : 10Hz to 2000Hz to 10Hz for 20 min. 加速度幅/Total Amplitude : 3.0mm or Acceleration amplitude 245m/s^2 whichever is smaller. 試験時間/Testing Time : A period of 2h in each of 3 mutually perpendicular directions	30	外観/Appearance		No damaged	No damaged	No damaged	OK
		ｺﾓﾝﾓｰﾄﾞｲﾝﾀﾞｸﾀﾝｽ/ Common Mode Inductance(Lc) (μH) at 1MHz	AVG	112.17	109.77	100μH -30%/+50%	OK
			MAX	119.2	119.2		
			MIN	106.4	101.2		
		絶縁抵抗/ Insulation Resistance(MΩ)	AVG	6.29E+11	5.81E+11	1.0E+07Ω MIN.	OK
			MAX	8.6E+11	9.7E+11		
			MIN	2.2E+11	1.8E+11		
		耐電圧/Withstand Voltage(V) 125DCV		No damaged	No damaged	No damaged	OK

				Tome/Japan	Malaysia		
試験項目、条件 Testing Item、Condition	サンプル数 Sample Size	評価項目 Confirmed Item		現行工場 Current Factory	新工場 New Factory	判定値 Acceptance Value	判定 OK/NG
6. はんだ付け性/Solderability ﾌﾗｯｸｽ/Flux : Ethanol solution of rosin,25(wt)% 予熱/Pre-Heating : 150±5℃/60±5s はんだ/Solder : Sn-3.0Ag-0.5Cu はんだ温度/Solder Temperature : 245±3℃ 浸せき時間/Immersion Time : 4±1s 浸せき引上げ速度/Immersion and Emersion rates : 25mm/s	30	濡れ面積/ New uniform coating area		>90%	>90%	90%	OK
7. はんだ耐熱/Resistance to Soldering Heat 予熱/Pre-Heating : 150±5℃/60±5s はんだ/Solder : Sn-3.0Ag-0.5Cu はんだ温度/Solder Temperature : 260±5℃ 浸せき時間/Immersion Time : 10±0.5s 浸せき引上げ速度/Immersion and Emersion rates : 25mm/s	30	外観/Appearance		No damaged	No damaged	No damaged	OK
		ｺﾓﾝﾓｰﾄﾞｲﾝﾀﾞｸﾀﾝｽ/ Common Mode Inductance(Lc) (μH) at 1MHz	AVG	113.55	107.47	100μH -30%/+50%	OK
			MAX	119.9	116.8		
			MIN	103.0	91.2		
		絶縁抵抗/ Insulation Resistance(MΩ)	AVG	5.70E+11	5.70E+11	1.0E+07Ω MIN.	OK
			MAX	1.8E+12	1.8E+12		
			MIN	5.8E+10	5.8E+10		
		耐電圧/Withstand Voltage(V) 125DCV		No damaged	No damaged	No damaged	OK
8. 温度ｻｲｸﾙ/Temperature Cycle 1ｻｲｸﾙ条件/1 Cycle condition Step 1: -40℃+0/-3℃, 30±3 min. Step 2: 125℃+3/-0℃, 30±3 min. 回数/Total of Cycles :1000 cycles	77	外観/Appearance		No damaged	No damaged	No damaged	OK
		ｺﾓﾝﾓｰﾄﾞｲﾝﾀﾞｸﾀﾝｽ/ Common Mode Inductance(Lc) (μH) at 1MHz	AVG	115.22	108.48	100μH -30%/+50%	OK
			MAX	125.1	118.7		
			MIN	99.3	90.0		
		絶縁抵抗/ Insulation Resistance(MΩ)	AVG	1.46E+12	1.30E+12	1.0E+07Ω MIN.	OK
			MAX	4.5E+12	3.2E+12		
			MIN	8.7E+11	5.4E+10		
		耐電圧/Withstand Voltage(V) 125DCV		No damaged	No damaged	No damaged	OK
9. 耐湿性/Humidity 温度/Temperature : 85±2℃ 湿度/Humidity : 85±5%(RH) 時間/Time : 1000h(+48h,-0h)	77	外観/Appearance		No damaged	No damaged	No damaged	OK
		ｺﾓﾝﾓｰﾄﾞｲﾝﾀﾞｸﾀﾝｽ/ Common Mode Inductance(Lc) (μH) at 1MHz	AVG	112.19	110.64	100μH -30%/+50%	OK
			MAX	120.7	121.1		
			MIN	100.7	97.5		
		絶縁抵抗/ Insulation Resistance(MΩ)	AVG	1.36E+12	9.50E+11	1.0E+07Ω MIN.	OK
			MAX	2.7E+12	2.1E+12		
			MIN	2.4E+11	3.9E+10		
		耐電圧/Withstand Voltage(V) 125DCV		No damaged	No damaged	No damaged	OK
10. 高温負荷試験/Heat Life 温度/Temperature : 125±2℃ 印加電力/Applying Current: Rated Current 時間/Time : 1000h(+48h,-0h)	77	外観/Appearance		No damaged	No damaged	No damaged	OK
		ｺﾓﾝﾓｰﾄﾞｲﾝﾀﾞｸﾀﾝｽ/ Common Mode Inductance(Lc) (μH) at 1MHz	AVG	113.50	111.77	100μH -30%/+50%	OK
			MAX	125.1	125.2		
			MIN	98.3	104.9		
		絶縁抵抗/ Insulation Resistance(MΩ)	AVG	1.12E+12	1.18E+12	1.0E+07Ω MIN.	OK
			MAX	2.5E+12	7.7E+12		
			MIN	3.2E+11	1.2E+11		
		耐電圧/Withstand Voltage(V) 125DCV		No damaged	No damaged	No damaged	OK
11. 耐寒性/Cold Resistance 温度/Temperature : -40±2℃ 時間/Time : 1000h(+48h,-0h)	77	外観/Appearance		No damaged	No damaged	No damaged	OK
		ｺﾓﾝﾓｰﾄﾞｲﾝﾀﾞｸﾀﾝｽ/ Common Mode Inductance(Lc) (μH) at 1MHz	AVG	117.20	114.37	100μH -30%/+50%	OK
			MAX	131.3	121.3		
			MIN	100.1	102.6		
		絶縁抵抗/ Insulation Resistance(MΩ)	AVG	6.81E+11	1.30E+12	1.0E+07Ω MIN.	OK
			MAX	2.2E+12	2.5E+12		
			MIN	4.7E+10	3.1E+10		
		耐電圧/Withstand Voltage(V) 125DCV		No damaged	No damaged	No damaged	OK