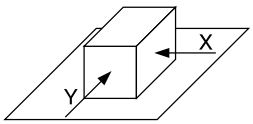
Mechanical and Climatic Reliability Test

TEST	SPECIFICATION	TEST CONDITION
Terminal strength	Terminal should not be peeled off. 	Direction: x , y Force: 0.51 KGF Time:10±2 seconds (refer to the figure at left)
Shock Test	The inductance shall not change more than±3.0%	Direction: x , y , z Shock acceleration: 98 m/s^2 (100g) By rubber block shock testing machine.
Vibration Test	The inductance shall not change more than±3.0%	Direction: x , y, z Frequency: 10 to 55 to 10 Hz/min Amplitude: 1.5mm p-p Time: 1 hour
Humidity Test	The inductance shall not change more than±5.0%	Temp:40±2˚C Time: 96 hours RH: 90 ~ 95% 1 hour drying under normal condition.
External Appearance	No external defects	On visual inspection
Heat Endurance Test		Refer to conventional SMD inductor reliability test
Dielectric Strength	No apparent damage	Applied DC 100V for 1 minute between coil and core.
Insulation Resistance	Higher than 100MΩ	Applied DC 100V between coil and core.

Electrical Characteristics Test Equipment

EQUIPMENT	MEASUREMENT PARAMETERS	REMARK
HP4284A	L, Q, Z, θ	20Hz to 1MHz
HP4285A	L, Q, Z, θ	75KHz to 30MHz
HP42841A	Rated current	Used with HP4284A/4285A, 0.01 ~ 20.0A
HP8753E	S parameters	30KHz to 6GHz
ZENTECH 502	DC resistance	Low-ohm meter
ZENTECH 702A	Insulation resistance	Ultra high resistance meter

NOTE: Operating Temperature : -25 ~ +100˚C
Inductance temperature coefficient: (0 ~ 2000) * 10^{-8} /˚C (-25~+80)