



Vishay Electro-Films Testing Capabilities

GROUP A			
ITEM	TEST	SPECIFICATION METHOD	QUANTITY TESTED
1	DC resistance	MIL-PRF-55342 paragraph 4.8.2	100 %
2	Thermal shock	MIL-PRF-55342 paragraph 4.8.3	100 % ⁽¹⁾
3	DC resistance	MIL-PRF-55342 paragraph 4.8.2	100 %
4	Visual and mechanical inspection	MIL-STD-883 method 2010	100 %

GROUP A - SPACE LEVEL			
ITEM	TEST	SPECIFICATION METHOD	QUANTITY TESTED
1	DC resistance	MIL-PRF-55342 paragraph 4.8.2	100 %
2	Thermal shock	MIL-PRF-55342 paragraph 4.8.3	100 % ⁽¹⁾
3	High temperature exposure	MIL-PRF-55342 paragraph 4.8.7	100 %
4	DC resistance	MIL-PRF-55342 paragraph 4.8.2	100 %
5	Visual and mechanical inspection	MIL-STD-883 method 2010	100 %

GROUP B			
ITEM	TEST	SPECIFICATION METHOD	QUANTITY TESTED ⁽²⁾
1	TCR	MIL-PRF-55342 paragraph 4.8.10	20 (0)
2	Short time overload	MIL-PRF-55342 paragraph 4.8.6	20 (0)
3	Power conditioning	MIL-PRF-55342 paragraph 4.8.4	20 (0)
4	Bondability / bond integrity (gold wedge bond)	MIL-STD-883 method 2011, condition D	10 (0)

GROUP C			
ITEM	TEST	SPECIFICATION METHOD	QUANTITY TESTED ⁽²⁾
1	Thermal shock condition F	MIL-PRF-55342 paragraph 4.8.3	30 (1)
2	Low temperature operation	MIL-PRF-55342 paragraph 4.8.5	30 (1)
3	Resistance to bond	MIL-PRF-55342 paragraph 4.8.8.2	30 (1)
4	Moisture	MIL-PRF-55342 paragraph 4.8.9	30 (1)
5	High temperature exposure 150 °C 100 h ± 4 h	MIL-PRF-55342 paragraph 4.8.7	30 (1)
6	Life 70 °C 1000 h at rated power ⁽³⁾	MIL-PRF-55342 paragraph 4.8.11	30 (1)

CLASS H PASSIVE ELEMENT EVALUATION REQUIREMENTS		
TEST	SPECIFICATION METHOD	QUANTITY TESTED ⁽²⁾
Electrical	MIL-PRF-38534 C.3.4.1	100 %
Visual inspection	MIL-PRF-38534 C.3.4.2	100 %
Element electrical	MIL-PRF-38534 C.3.4.4	10 (0)
Wire bond evaluation	MIL-PRF-38534 C.3.4.3	10 (0)

CLASS K PASSIVE ELEMENT EVALUATION REQUIREMENTS		
TEST	SPECIFICATION METHOD	QUANTITY TESTED ⁽²⁾
Electrical	MIL-PRF-38534 C.3.4.1	100 %
Visual inspection	MIL-PRF-38534 C.3.4.2	100 %
Temperature cycling	MIL-PRF-38534 C.3.4.3	10 (0)
Constant acceleration	MIL-PRF-38534	10 (0)
Voltage conditioning	MIL-PRF-38534 C.3.4.7	10 (0)
Visual inspection	MIL-PRF-38534 C.3.4.5	10 (0)
Element electrical	MIL-PRF-38534 C.3.4.4	10 (0)
Wire bond evaluation	MIL-PRF-38534 C.3.4.3	10 (0)

Notes

- ⁽¹⁾ All parts get baked and electrically tested to remain in tolerance. Sample has delta R measured pre and post bake
- ⁽²⁾ Number in parenthesis is the number of allowed failures
- ⁽³⁾ 2000 h available on request



CLASS H AND K SUBSTRATE EVALUATION REQUIREMENTS		
TEST	SPECIFICATION METHOD	QUANTITY TESTED ⁽¹⁾
Electrical	MIL-PRF-38534 C.3.7.3	100 %
Visual inspection	MIL-STD-883 method 2032	100 %
Physical dimensions	MIL-STD-883 method 2016	5 (0)
Visual inspections	MIL-STD-883 method 2032	5 (0)
Electrical	MIL-PRF-38534 C.3.7.5.1.3	5 (0)
Conductor thickness or conductor resistivity	MIL-PRF-38534 C.3.7.5.2.1	3 (0)
Film adhesion	MIL-PRF-38534 C.3.7.5.2.3	3 (0)
Solderability	MIL-PRF-38534 C.3.7.5.2.4	3 (0)
TCR	MIL-PRF-38534 C.3.7.5.3.1	2 (0)
Wirebond evaluation	MIL-STD-883 method 2011	10 (0) wires or 20 (1) wires
Die shear evaluation	MIL-STD-883 method 2019	2 (0)

Notes

(1) Number in parenthesis is the number of allowed failures

OTHER AVAILABLE TESTING

- Vibration
- High temperature storage
- Substrate surface finish
- Stability
- Resistance to bonding exposure
- Resistance to solvents
- Sample evaluation
- Serialization
- Die attach
- Dissipation
- Dielectric withstanding voltage
- Freeze test
- Insulation resistance
- Noise index
- Center tap ratio
- Capacitance
- Cap. temp. char.
- Back contact
- Blister test
- Burn-in