

## Advantages

Lot Acceptance Testing provides screening and qualification tests to enable the use of Ohmcraft's standard parts in flight applications (Aerospace/Space). Ohmcraft can screen and qualify its resistor products to MIL-PRF-55342, MIL-PRF-49462, NASA EEE-INST-002 (Level 1 or Level 2) or a custom test plan. LAT Testing includes but is not limited to:

- **Thermal Shock**
- **Power Conditioning**
- **High Temperature Exposure**
- **Solderability**
- **TCR**
- **Load Life**
- **Short Term Overload**
- **Terminal Strength**
- **Resistance to Solvents**



## Electrical Specifications



Value R	R Ω	Resistance Value in kΩs, MΩs, GΩs or TΩs
Tolerance	± X% at <Test voltage> V	Resistance Tolerance measured at specified voltage
TCR	< [Ordering Coder TCR] ppm/°C (Hot to Tmax°C, Cold to Tmin°C) < 2*[Ordering Coder TCR] ppm/°C (Hot to 125°C, Cold to -55°C)	TCR referenced to 25°C
Working Voltage	<Application voltage> V	Voltage across the resistor during application operation
Max Voltage Rating	<Max Voltage> V	Maximum Voltage based on resistance value or case rating
Max Power Rating	<Max Wattage> W	Maximum Wattage based on resistance value or case rating

## Conformance Testing

Pre-Cap Visual Inspection:	13 pcs.
Prior to Conformance Test	
Conformance Test - 100% Screening	
Visual Inspection:	100%
i. Magnification: 30x to 60x	
Mechanical Inspection:	3pcs. (minimum)
DC Resistance:	100%
i. Per MIL-STD-202, Method 303	
ii. Measured at specified test voltage for resistance tolerance	
Thermal Shock:	100%
i. Per MIL-STD-202, Method 107, Test Condition B (modified)	
ii. 5 cycles (MIL-PRF-55342), 10 cycles (NASA Level 2) or 25 cycles (NASA Level 1)	
iii. Min. temp -55°C, Max. temp 125°C	
High Temperature Exposure (SMT):	100%
i. 100 hours at 125°C	
- or -	
Power Conditioning (Leaded):	100%
i. 100 hours at Working Voltage at 25°C	
Final DC Resistance:	100%
i. Per MIL-STD-202, Method 303	
ii. Measured at specified test voltage for resistance tolerance	
Conformance PDA: 5% (NASA Level 1 or MIL-PRF-55342), 10% (MIL-PRF-49462) or 15% (NASA Level 2)	



## Qualification Testing

	NASA Sample Size (Level 1 / Level 2)	NASA Sample Size (Level 1 / Level 2)
<b>1) Group 1:</b>		
a. Conformance Testing: Basic Screening	100%	
<b>2) Group 2:</b>		
a. Solderability	3pcs / 3pcs	
i. MIL-STD-202, Method 208		
b. Resistance to Solvents (Leaded)	3pcs / 3pcs	
i. MIL-STD-202, Method 215		
<b>3) Group 3:</b>		
a. Temperature Coefficient (TCR)	10pcs / 6pcs	
i. Per MIL-STD-202, Method 304		
ii. Reference Temperature: 25°C		
b. Low Temperature Storage	10pcs / 6pcs	
i. -65°C no load dwell for 24±4 hours		
ii. +25°C ambient no load dwell for 2-8 hours		
c. Low Temperature Operation	10pcs / 6pcs	
i. -65°C no load dwell for 1 hour		
ii. Working Voltage for 45 minutes		
iii. +25°C no load dwell for 24±4 hours		
d. Short Time Overload	10pcs / 6pcs	
i. 2x Working Voltage for 5 seconds		
<b>4) Group 4:</b>		
a. Resistance to soldering heat	9pcs / 6pcs	
i. MIL-STD-202, Method 210 Test Condition B (modified)		
ii. 260°C for 20 seconds		
b. Terminal Strength (Leaded)	9pcs / 6pcs	
i. MIL-STD-202, Method 211 Test Condition C		
ii. 16 ounces ± 1 ounce for 10 seconds		
<b>5) Group 5:</b>		
a. Shock (Leaded)	9pcs / 6pcs	
i. MIL-STD-202, Method 213B Test Condition I		
b. Vibration (Leaded)	9pcs / 6pcs	
i. Per MIL-STD-202, Method 204, Test Condition D		
<b>6) Group 6:</b>		
a. Load Life	12pcs / 9pcs	
i. Per MIL-STD-202, Method 108		
ii. Working Voltage for 1000 or 2000 hours at 25°C		
<b>7) Group 7A:</b>		
a. Resistance to Bonding Exposure (SMT)	10pcs / 5pcs	
i. Solder mounted to a ceramic test plate		
ii. 4-12 hours stabilization at 25°C		
<b>7) Group 7B:</b>		
a. Solder Mounting Integrity (SMT)	10pcs / 5pcs	
i. Solder mounted to a ceramic test plate		
ii. 2kg, 90° Angle, 30 seconds minimum		
<b>8) Group 8: -- No Applicable Tests --</b>		
<b>9) Group 9:</b>		
a. High Temperature Exposure	5pcs	
i. 125°C for 100 hours		

### Custom Configurations Available Upon Request

Please consult with our knowledgeable sales staff for help specifying custom parts to meet your needs:

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