

SPECIFICATION AND PERFORMANCE

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|---------------|-----------|-------------|------------------|-------------|------------|
| Series | 217C-AE05 | File | 217C-AE05_Spec_1 | Date | 2024/01/25 |
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Scope:

This specification covers the requirements for product performance, test methods and quality assurance provisions of 217C-AE05

Performance and Descriptions:

The product is designed to meet the electrical, mechanical and environmental performance requirements specification. Unless otherwise specified, all tests are performed at ambient environmental conditions.

RoHS:

All material in according with the RoHS environment related substances list controlled.

MATERIALS

| NO. | PART NAME | DESCRIPTION |
|-----|-----------|---|
| 1 | HOUSING | Thermoplastic, UL94V-0, Black |
| 2 | CONTACT | Copper alloy, 15u" gold plating on contact area, gold flash on solder area, nickel under plating over all |
| 3 | SHELL | Stainless Steel, Nickel plating |
| 4 | GLUE | EPOXY |

RATING

| | |
|-----------------------|----------------|
| Rated Current | 5A |
| Rated Voltage | 20VAC Max. |
| Operating Temperature | -40°C to +85°C |
| Durability | 10,000 cycles |

ELECTRICAL

| Item | Requirement | Test Condition |
|---------------------------------|--|---|
| Low level Contact resistance | 40mΩ max(initial) 10mΩ max change for post test | Subject mated contacts assembled in housing to 20mV max open circuit at 100mA max. EIA-364-23B |
| Dielectric withstanding voltage | No flashover& spark over & excess leakage & breakdown | Test voltage 100V AC between adjacent contacts of mated and unmated connector assemblies for one minute. Interval of shield case and contacts too, in the same way EIA-364-20B |
| Insulation resistance | Initial: 100 MΩ min. Final(post test) 100 MΩ min. | Test voltage 100±10V DC between adjacent contacts of mated and unmated connector assemblies interval of shield case and |

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| | | contacts too in the same way. EIA-364-21C |
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MECHANICAL

| Item | Requirement | Test Condition |
|----------------|---|--|
| Mating force | 0.5~2Kgf | Measure force necessary to mate connector assemblies at maximum rate of 30cycles/min. EIA-364-13 |
| Unmating force | 0.8~2Kgf | Measure force necessary to mate connector assemblies at maximum rate of 30cycles/min. EIA-364-13 |
| Durability | Mating force: 0.5~2Kgf Unmating force: 0.8~2Kgf Contact resistance:10mΩ max change for post test appearance :no breakdown | Mate and unmated connector assemblies for 10,000 cycles at. Cycle rate of 500 cycles per hour if done EIA-364-09 |

ENVIRONMENTAL

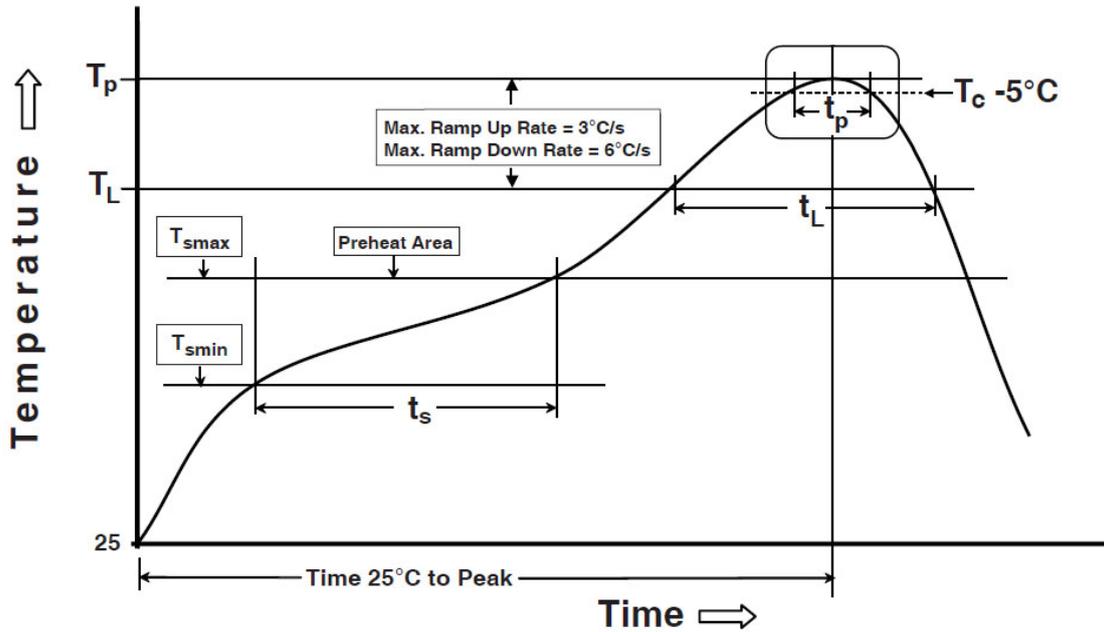
| Item | Requirement | Test Condition |
|----------------------|--|---|
| Thermal shock | Contact resistance:10mΩ max Change for post test | Mated connector -40±3°C(30minutes),+85±2°C(30minutes) Perform this 1 cycle ,repeat 10 cycles EIA-364-32C condition 1 |
| Humidity | Withstand voltage: no breakdown Insulation resistance: 100 MΩ Min. Contact resistance: 10mΩ max. change for post test Appearance :no breakdown | Mated connector 25~65°C, 90~95% RH, 1 cycle:24 hours, 4cycles EIA-364-31B |
| Degree of protection | No significant change in pressure < 30 Pa | Test pressure: 15kPa~17kPa Test duration: 5 second |

SOLDER ABILITY

| Item | Requirement | Test Condition |
|----------------|---|--|
| Solder-ability | Solder tails shall pass 95% min coverage | Solder temperature:265±5°C Duration:15±0.5sec .EIA-364-52 |



Reflow Profile



Preheating temperature: $150 \sim 200^\circ C$, 60~120 seconds

Liquidus temperature (T_L): $217^\circ C$, 60~150 seconds

Peak temperature: $260^\circ C$

Time within $5^\circ C$ of peak temperature (T_c): $255^\circ C$, 30seconds