

**MODEL:** MSD-5-A | **DESCRIPTION:** MICRO SD CARD CONNECTOR**FEATURES**

- micro SD card connector
- push in, auto eject out
- card detect switch
- gold flash
- surface mount
- UL94V-0

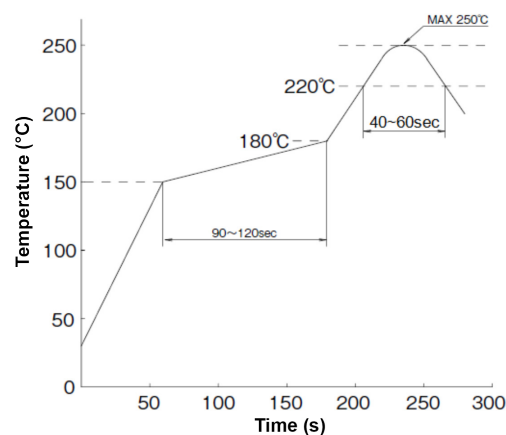
**SPECIFICATIONS**

| parameter                       | conditions/description                  | min   | typ   | max | units  |
|---------------------------------|-----------------------------------------|-------|-------|-----|--------|
| rated voltage                   |                                         |       |       | 30  | V      |
| rated current                   |                                         |       |       | 0.5 | A      |
| contact resistance <sup>1</sup> |                                         |       |       | 100 | mΩ     |
| insulation resistance           | at 500 Vdc, between adjacent circuits   | 1,000 |       |     | MΩ     |
| voltage withstand               | for 1 minute, between adjacent circuits |       | 100   |     | Vac    |
| insertion force                 | at a rate of 25 mm/min                  |       |       | 10  | N      |
| withdrawal force                | at a rate of 25 mm/min                  | 0.5   |       |     | N      |
| life                            |                                         |       | 5,000 |     | cycles |
| operating temperature           |                                         | -40   |       | 85  | °C     |
| flammability rating             | UL94V-0                                 |       |       |     |        |
| RoHS                            | yes                                     |       |       |     |        |

Note: 1. When measured at 20 mV / 100 mA.

**SOLDERABILITY**

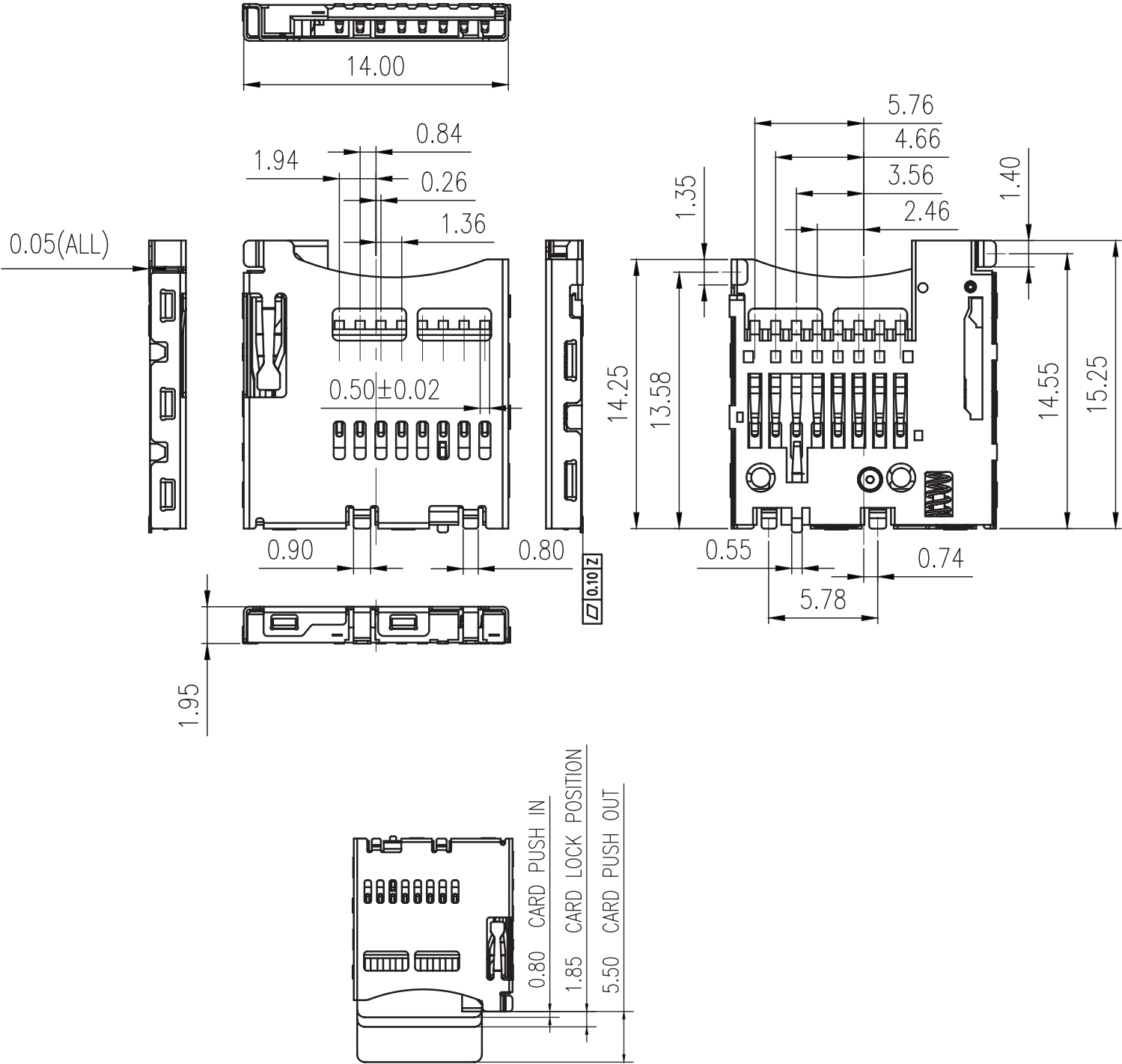
| parameter        | conditions/description                                                                                     | min | typ | max | units |
|------------------|------------------------------------------------------------------------------------------------------------|-----|-----|-----|-------|
| reel storage     | at relative humidity 40~70%<br>reel opened: use within 1 month<br>reel unopened: up to 15 month shelf life | 16  | 22  | 28  | °C    |
| reflow soldering | see reflow profile                                                                                         |     |     | 250 | °C    |



MECHANICAL DRAWING

units: mm  
tolerance:  
X.X ±0.30 mm  
X.XX ±0.20 mm  
X.XXX ±0.10 mm  
unless otherwise specified

| DESCRIPTION       | MATERIAL                     | PLATING/COLOR                                                  |
|-------------------|------------------------------|----------------------------------------------------------------|
| housing           | LCP 30% GF<br>[UL94V-0]      | black                                                          |
| contact terminals | phosphor bronze<br>t=0.15 mm | contact area: gold<br>flash<br>solder area: tin over<br>nickel |
| cover             | SUS304 t=0.15 mm             | nickel                                                         |

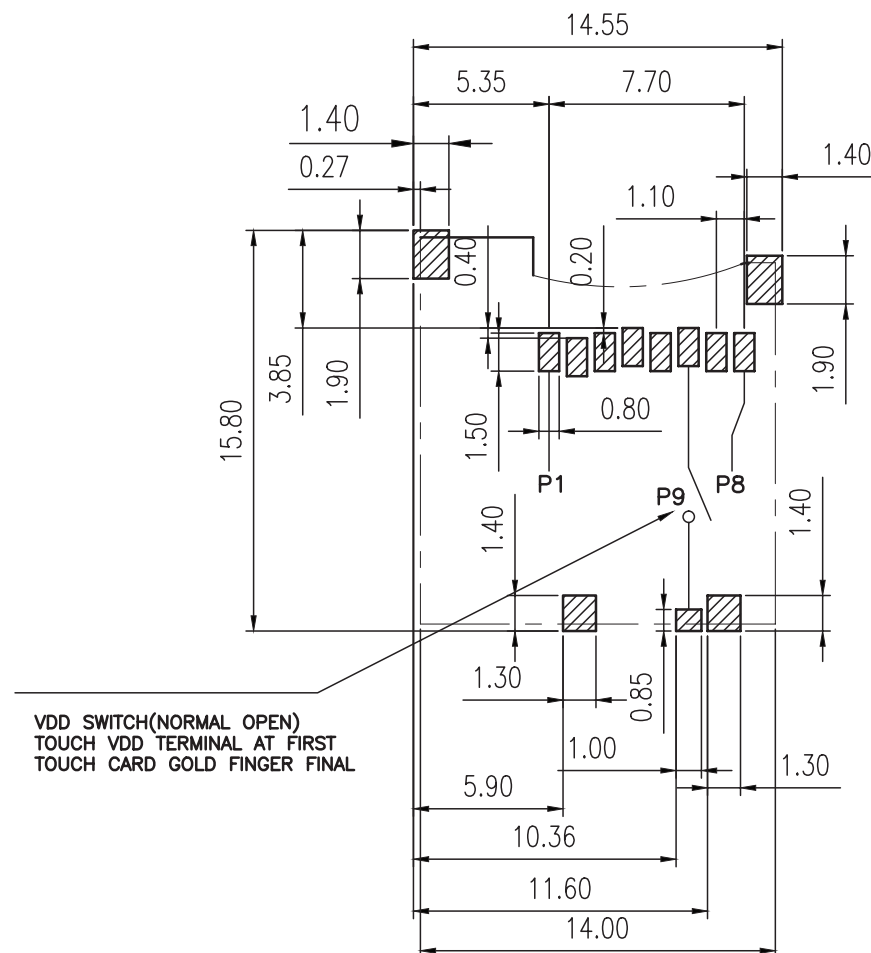


## MECHANICAL DRAWING (CONTINUED)

units: mm  
PCB tolerance:  $\pm 0.05$  mm

| PIN CONNECTIONS |             |        |                                 |
|-----------------|-------------|--------|---------------------------------|
| PIN             | SIGNAL NAME | TYPE   | DESCRIPTION                     |
| 1               | DAT2        | I/O/PP | DATA LINE [BIT 2]               |
| 2               | CD/DAT3     | I/O/PP | CARD DETECT / DATA LINE [BIT 3] |
| 3               | CMD         | PP     | COMMAND / RESPONSE              |
| 4               | VDD         | S      | SUPPLY VOLTAGE                  |
| 5               | CLK         | I      | CLOCK                           |
| 6               | VSS         | S      | SUPPLY VOLTAGE GROUND           |
| 7               | DAT0        | I/O/PP | DATA LINE [BIT 0]               |
| 8               | DAT1        | I/O/PP | DATA LINE [BIT 1]               |
| 9               | -           | -      | CARD DETECT SWITCH              |
| GND             | -           | -      | COVER GROUND                    |

| CARD STATUS  |               |
|--------------|---------------|
| WITHOUT CARD | CARD INSERTED |
|              |               |



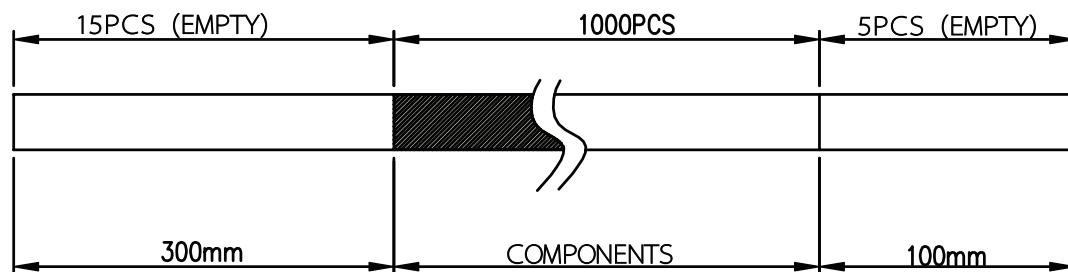
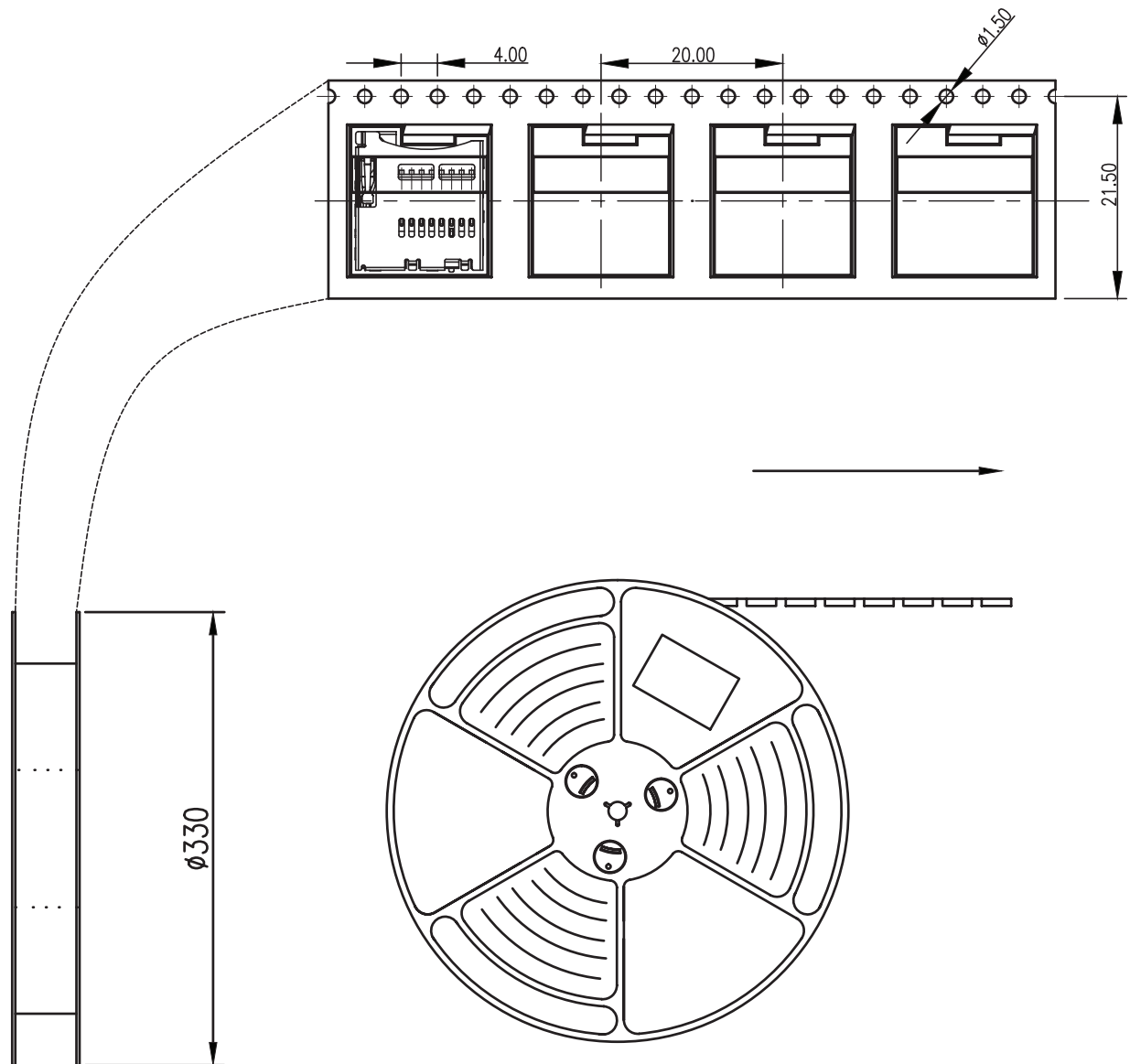
Recommended PCB Layout  
Top View

## PACKAGING

units: mm

Reel Size:  $\varnothing 330$  mm

Reel QTY: 1,000 pcs per reel



## REVISION HISTORY

| rev. | description     | date       |
|------|-----------------|------------|
| 1.0  | initial release | 10/26/2023 |

The revision history provided is for informational purposes only and is believed to be accurate.



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