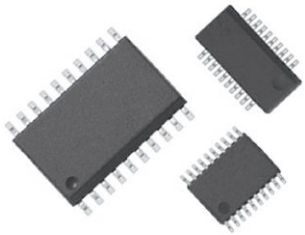
# 25 mil Pitch Thin Film Surface Mount Resistor/Capacitor Network



Actual Size

IEEE 1284 parallel port termination network

## FEATURES

- Rugged, molded case construction JEDEC MO-137AD
- Reduces total assembly costs
- Saves board space
- Compatible with automatic surface mounting equipment
- Uniform performance characteristics
- Resistors and capacitors on a single chip
- UL 94 V-0 flame resistant
- Compliant to RoHS Directive 2002/95/EC
- Halogen-free according to IEC 61249-2-21 definition

Pb-free

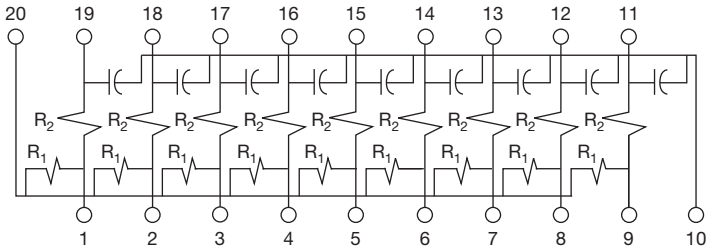
RoHS COMPLIANT

HALOGEN FREE

## TYPICAL PERFORMANCE

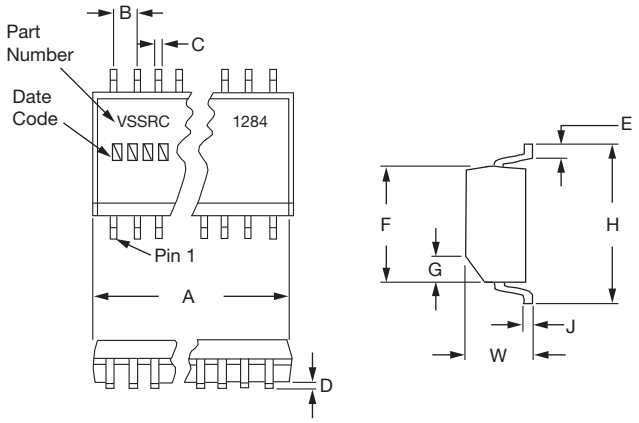
| | TCR | TOLERANCE |
|---|---|---|
| RESISTOR | 200 | 10 |
| | TCC | TOLERANCE |
| CAPACITOR | 200 | 20 |

## SCHEMATIC




| STANDARD ELECTRICAL SPECIFICATIONS | | |
|---|---|---|
| **TEST** | **SPECIFICATIONS** | **CONDITIONS** |
| **Material** | Tantalum nitride | - |
| **Pin/Lead Number** | 20 | - |
| **Resistance Range** | 10 Ω to 10 kΩ | - |
| **TCR: Absolute** | ± 200 ppm/°C | - |
| **TCR: Tracking** | - | - |
| **Tolerance: Absolute** | ± 10 % ($R_1$ and $R_2$), ± 20 % (C) | At 1 MHz and $V_{RMS}$ over + 10 °C to + 70 °C |
| **Power Rating: Resistor** | 100 mW | - |
| **Power Rating: Package** | 1 W | - |
| **Stability: Ratio** | - | - |
| **Operating Temperature Range** | - | - |
| **Storage Temperature Range** | - | - |
| **Capacitance Range** | 27 pF to 220 pF | Based on number of resistors |
| **ESD Protection** | > 2 kV | MIL-STD-883, method 3015 |
| **Breakdown Voltage** | 25 V | - |

## DIMENSIONS in inches and millimeters




| DIMENSION | MODEL VSSRC1284 | |
|---|---|---|
| | INCHES | |
| | MINIMUM | MAXIMUM |
| A | 0.344 max. | 8.74 max. |
| B (ref.) | 0.025 | 0.64 |
| C (ref.) | 0.010 | 0.25 |
| D | 0.006 | 0.15 |
| E (typ.) | 0.025 | 0.64 |
| F | 0.154 ± 0.003 | 3.85 ± 0.08 |
| G | 0.015 x 45° | 0.38 x 45° |
| H | 0.236 ± 0.008 | 5.9 ± 0.20 |
| J (ref.) | 0.010 | 0.25 |
| W | 0.064 ± 0.005 | 1.64 ± 0.13 |

**Note**
- Mold flash not included in body dimensions

## IMPRINTING

**VSSRC1284-X**

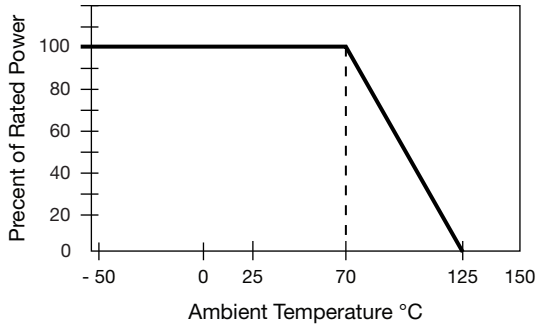
Date code

-X = Molded version number from table below

## MECHANICAL SPECIFICATIONS

| | |
|---|---|
| **Resistive Element** | Tantalum nitride |
| **Substrate Material** | Silicon |
| **Body** | Molded epoxy |
| **Terminals** | Copper alloy |
| **Plating** | 100 % matte Sn |
| **Lead Coplanarity** | 0.0005" |
| **Marking Resistance to Solvents** | Permanency testing per MIL-STD-202, method 215 |

## DERATING CURVE




## STANDARD VALUES

| AVAILABLE MODELS | $R_1$ ± 10 % (Ω) | $R_2$ ± 10 % (Ω) | C ± 20 % (pF) |
|---|---|---|---|
| **VSSRC1284-1** | 2.2K | 33 | 220 |
| **VSSRC1284-2** | 4.7K | 33 | 180 |
| **VSSRC1284-3** | 1K | 33 | 180 |
| **VSSRC1284-4** | 4.7K | 10 | 180 |
| **VSSRC1284-5** | 4.7K | 27 | 33 |
| **VSSRC1284-6** | 4.7K | 270 | 33 |
| **VSSRC1284-7** | 10K | 10 | 27 |

## GLOBAL PART NUMBER INFORMATION

**New Global Part Numbering: VSSRC1284-1TF**

| V | S | S | R | C | 1 | 2 | 8 | 4 | - | 1 | T | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

| GLOBAL MODEL | VALUE | PACKAGING |
|---|---|---|
| **VSSRC1284** | **-1**<br>**-2**<br>**-3**<br>**-4**<br>**-5**<br>**-6**<br>**-7** | **UF** = TUBED<br><br>TAPE AND REEL<br>**TF** = Full reels |

**Historical Part Number example: VSSRC1284-1T/R (for reference purposes only)**

| VSSRC1284 | -1 | T/R |
|---|---|---|
| MODEL | VALUE | PACKAGING |

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