

SMQF31M2JT

✓ ACTIVE

CGS | CGS SMQ

TE Internal #: 8-2176620-2

1.2M ohm, Metal Film, Power Resistor, 5 %, 3 W, ±100 ppm/°C,  
Solder, 2 Terminations, 6.8 mm [.268 in] Height, 13.5 mm [.531 in]  
Length, CGS SMQ

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Passive Components > Resistors > Surface Mount Resistors



Resistor Type: **Power Resistor**  
Element Type: **Metal Film**  
Power Rating: **3 W**  
Resistance Value: **1.2M  $\Omega$**   
Resistance Class: **1M $\Omega$  – 1G $\Omega$**

Features

Product Type Features

|               |                |
|---------------|----------------|
| Resistor Type | Power Resistor |
| Element Type  | Metal Film     |

Configuration Features

|                     |   |
|---------------------|---|
| Number of Resistors | 1 |
|---------------------|---|

Electrical Characteristics

|                             |                           |
|-----------------------------|---------------------------|
| Operating Voltage           | 500 V                     |
| Power Rating                | 3 W                       |
| Resistance Value            | 1.2M $\Omega$             |
| Resistance Class            | 1M $\Omega$ – 1G $\Omega$ |
| Passive Component Tolerance | 5 %                       |

Termination Features

|                                         |        |
|-----------------------------------------|--------|
| Surface Mount Resistor Termination Type | Solder |
| Number of Terminations                  | 2      |



Dimensions

|                |                  |
|----------------|------------------|
| Product Height | 6.8 mm[.268 in]  |
| Product Length | 13.5 mm[.531 in] |
| Product Width  | 7.3 mm[.287 in]  |

Usage Conditions

|                             |                            |
|-----------------------------|----------------------------|
| Operating Temperature Range | -55 – 150 °C[-67 – 302 °F] |
| Temperature Coefficient     | ±100 ppm/°C                |

Industry Standards

|                            |                    |
|----------------------------|--------------------|
| UL Flammability Rating     | UL 94V-0           |
| Industry Standard          | AEC-Q200 Compliant |
| ESD HBM Classification     | 2                  |
| Moisture Sensitivity Level | 1                  |

Packaging Features

|                  |                |
|------------------|----------------|
| Packaging Method | Taped & Reeled |
|------------------|----------------|

Product Compliance

For compliance documentation, visit the product page on TE.com>

|                                               |                                                                                                                                 |
|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| EU RoHS Directive 2011/65/EU                  | Compliant                                                                                                                       |
| EU ELV Directive 2000/53/EC                   | Compliant                                                                                                                       |
| China RoHS 2 Directive MIIT Order No 32, 2016 | 有害物质含量符合标准要求 No Restricted Substance(s) Above Threshold                                                                         |
| EU REACH Regulation (EC) No. 1907/2006        | Current ECHA Candidate List: JUNE 2025 (250)<br>Candidate List Declared Against: JUNE 2025 (250)<br>Does not contain REACH SVHC |
| Halogen Content                               | Low Halogen - Br, Cl, F < 900 ppm per homogenous material. Also BFR/CFR/PVC Free                                                |
| Solder Process Capability                     | Reflow solder capable to 260°C                                                                                                  |

Product Compliance Disclaimer

This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided. This information is subject to change. The part numbers that TE has identified as EU RoHS compliant have a maximum concentration of 0.1% by weight in homogenous materials for lead, hexavalent chromium, mercury, PBB, PBDE, DBP, BBP, DEHP, DIBP, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2011/65/EU (RoHS2). Finished electrical and electronic equipment products will be CE marked as required by Directive 2011/65/EU. Components may not be CE marked. Additionally, the part numbers that TE has identified as EU ELV compliant have a maximum concentration of 0.1% by weight in homogenous

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materials for lead, hexavalent chromium, and mercury, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2000/53/EC (ELV). Regarding the REACH Regulations, TE’s information on SVHC in articles for this part number is still based on the European Chemical Agency (ECHA) ‘Guidance on requirements for substances in articles’(Version: 2, April 2011), applying the 0.1% weight on weight concentration threshold at the finished product level. TE is aware of the European Court of Justice ruling of September 10th, 2015 also known as O5A (Once An Article Always An Article) stating that, in case of ‘complex object’, the threshold for a SVHC must be applied to both the product as a whole and simultaneously to each of the articles forming part of its composition. TE has evaluated this ruling based on the new ECHA “Guidance on requirements for substances in articles” (June 2017, version 4.0) and will be updating its statements accordingly.

Compatible Parts

TE Part # 8-2176620-1  
[SMQF3W 1M1 5%](#)

TE Part # 1-2176324-4  
[SMV 3W 1M2 5%](#)

TE Part # 8-2176620-3  
[SMQF3W 1M3 5%](#)

Also in the Series | [CGS SMQ](#)

[Surface Mount Resistors\(528\)](#)

Documents

[Product Drawings](#)  
[SMQF3W 1M2 5%](#)

English

[CAD Files](#)  
Customer View Model  
[ENG\\_CVM\\_CVM\\_8-2176620-2\\_BA.3d\\_igs.zip](#)  
English  
Customer View Model  
[ENG\\_CVM\\_CVM\\_8-2176620-2\\_BA.3d\\_stp.zip](#)  
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3D

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Datasheets & Catalog Pages  
SMD\_MOULDED\_POWER\_RESISTOR  
English