

SMQF31M0JT

✓ ACTIVE

CGS | CGS SMQ

TE Internal #: 8-2176620-0

Power Resistor, Metal Film, 3 W, 1M ohm, 5 %, ±100 ppm/°C,  
Solder, 2 Termination, Height 6.8 mm [.268 in], Length 13.5 mm [.531 in], 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: **1M  $\Omega$**   
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            | 1M $\Omega$               |
| 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 |
| Temperature Coefficient     | ±100 ppm/°C  |

Industry Standards

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

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 | No Restricted Materials Above Threshold                                                                                         |
| EU REACH Regulation (EC) No. 1907/2006        | Current ECHA Candidate List: JUNE 2024 (241)<br>Candidate List Declared Against: JUNE 2024 (241)<br>Does not contain REACH SVHC |
| Halogen Content                               | Low Halogen - Br, Cl, F, I < 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 materials for lead, hexavalent chromium, and mercury, and 0.01% for cadmium, or qualify for an exemption to these limits

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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 # 8-1879022-5  
SMF3 1M0 5%

TE Part # 1-2176324-3  
SMV 3W 1M0 5%

TE Part # 8-2176620-1  
SMQF3W 1M1 5%

TE Part # 7-2176620-9  
SMQF3W 910K 5%

Also in the Series | CGS SMQ

Surface Mount Resistors(528)

Documents

Product Drawings

SMQF3W 1M0 5%

English

CAD Files

Customer View Model

ENG\_CVM\_CVM\_8-2176620-0\_BA.3d\_stp.zip

English

Customer View Model

ENG\_CVM\_CVM\_8-2176620-0\_BA.2d\_dxf.zip

English

Customer View Model

ENG\_CVM\_CVM\_8-2176620-0\_BA.3d\_igs.zip

English

3D PDF

3D



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By downloading the CAD file I accept and agree to the [Terms and Conditions](#) of use.

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