



Passive Components > Resistors > Surface Mount Resistors



Resistor Type: **Power Resistor**
Element Type: **Metal Film**
Power Rating: **3 W**
Resistance Value: **20K Ω**
Resistance Class: **1k Ω – 1M Ω**

Features

Product Type Features

Resistor Type	Power Resistor
Element Type	Metal Film

Configuration Features

Number of Resistors	1
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Electrical Characteristics

Operating Voltage	500 V
Power Rating	3 W
Resistance Value	20K Ω
Resistance Class	1k Ω – 1M Ω
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
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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) Candidate List Declared Against: JUNE 2024 (241) 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



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 # 3-2176620-8
SMQF3W 18K 5%

TE Part # 4-2176620-0
SMQF3W 22K 5%

TE Part # 9-1879022-3
SMF3 20K 5%

Also in the Series | CGS SMQ

Surface Mount Resistors(528)

Documents

Product Drawings

SMQF3W 20K 5%

English

CAD Files

Customer View Model

ENG_CVM_CVM_3-2176620-9_BA.3d_igs.zip

English

Customer View Model

ENG_CVM_CVM_3-2176620-9_BA.3d_stp.zip

English

Customer View Model

ENG_CVM_CVM_3-2176620-9_BA.2d_dxf.zip

English

3D PDF

3D

SMQF320KJT

Power Resistor, Metal Film, 3 W, 20K ohm, 5 %, ±100 ppm/°C, Solder, 2 Termination,
Height 6.8 mm [.268 in], Length 13.5 mm [.531 in], CGS SMD



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

Datasheets & Catalog Pages

SMD_MOULDED_POWER_RESISTOR

English