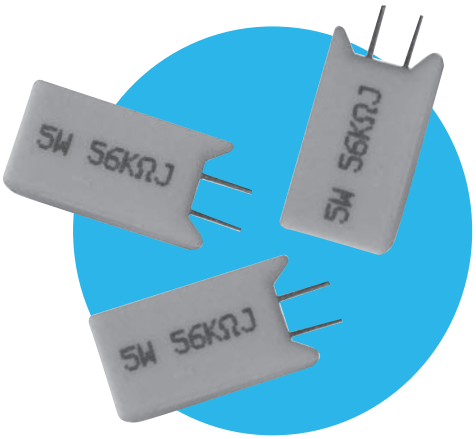
Resistors

Radial Ceramic Case Resistors Wirewound / Metal Oxide



SQM / CVF / CVW Series

- 2 to 10 watts
- Resistance 0R1 to 200K
- High overload capability
- Flameproof case
- Small PCB footprint
- RoHS compliant

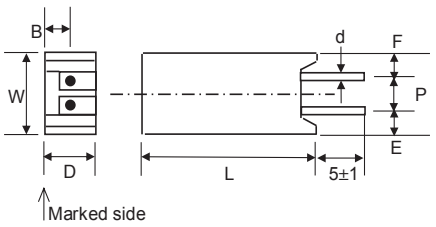
All parts are Pb-free and comply with EU Directive 2011/65/EU (RoHS2)

Electrical Data

		SQM2 / CV-2	SQM3 / CV-3	SQM5 / CV-5	SQM7 / CV-7	SQM10 / CV-10
Power rating at 70°C	watts	2	3	5	7	10
Resistance range – wirewound (CVW)	ohms	0R1 - 27R	0R1 - 39R	0R1 - 47R	0R1 - 680R	0R1 - 910R
Resistance range – oxide (CVF)	ohms	30R – 33K	43R – 56K	51R – 100K	750R - 200K	1K0 - 200K
Limiting element voltage	volts dc or ac rms	150	300	350	500	750
Thermal impedance	°C/watt	50	45	30	28	23
Isolation voltage	volts	1000				
TCR	ppm/°C	<20R: ± 400, ≥20R: ± 350				
Resistance Tolerance	%	± 5 ± 10				
Standard Values		E24				
Ambient temperature range	°C	-55 to +155ºC				

Physical Data (all dimensions in mm, weights in g)

Type	L ± 1.0	W ± 1.0	D ± 1.0	B ± 1.0	E ± 1.0	F ± 1.0	P ± 1.0	d ±0.05	Weight Nom.
SQM2 / CV-2	20	11.5	7.5	4.5	3.0	3.0	5	0.7	4.3
SQM3 / CV-3	25	12.5	8.5	4.5	4.0	4.0	5	0.7	5.6
SQM5 / CV-5	25	12.5	9	5.0	3.5	3.5	5	0.8	6.3
SQM7 / CV-7	38	12.5	9	5.0	2.75	5.0	5	0.8	10.7
SQM10/ CV-10	50	12.5	9	4.25	2.75	5.0	5	0.8	13.4



Construction

A high purity ceramic rod, with force fit end caps onto which is wound a wire element: or a deposited metal oxide film (depending on value). The element is fitted into a ceramic case with fireproof insulation cement.

General Note

TT Electronics reserves the right to make changes in product specification without notice or liability.
All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

Bi technologies IRC Welwyn

www.ttelectronicsresistors.com

© TT Electronics plc

Termination Details:

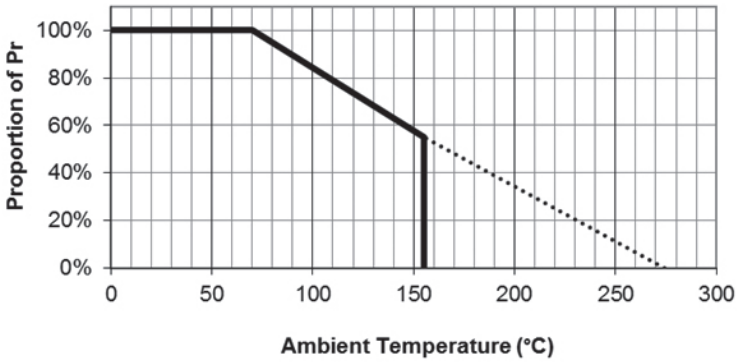
Material	The 100% Sn finish copper lead wires are internally welded to the resistance element end caps.
Solderability	The terminations meet the requirements of IEC 115-1 Clause 4.17.3.2
Strength	The terminations meet the requirements of IEC 86.2.21

Marking: Type reference, resistance value and tolerance are legend marked onto the upper surface.
Flammability: The resistor will not burn under any condition of applied temperature or overload.
Solvent resistance: The body protection and marking are resistant to all normal industrial solvents suitable for printed circuits.

Performance Data

		Maximum
Load at rated power (1000hrs at 70°C)	ΔR	<100K: 5% ≥100K: 10%
Derating from rated power at 70°C		See Graph
short term overload (lesser of 6.25 x Pr or 2.5 x LEV for 5s)	ΔR	5% +0.05Ω
Damp heat steady state (56 days, 40°C, ≥90% RH)	ΔR	5% +0.05Ω
Temperature rapid change (5 cycles -55ºC to +155ºC)	ΔR	2% +0.05Ω
Resistance to solder heat	ΔR	1% +0.05Ω
Voltage Proof (1kV for 60s)		No evidence of flashover, mechanical damage, arcing or insulation breakdown
Solderability		Min. 95% coverage

Temperature Derating



General Note
TT Electronics reserves the right to make changes in product specification without notice or liability.
All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

Bi technologies IRC Welwyn

www.ttelectronicsresistors.com

© TT Electronics plc

Ordering Procedure

This product has two valid part numbers:

European (Welwyn) Part Number: SQM3-1K2JB3 (SQM3, 1.2 kilohms ±5%, Pb-free)

S	Q	M	3	-	1	K	2	J	B	3
1					2			3	4	

1 Type	2 Value	3 Tolerance	4 Packing & Termination Finish		
SQM2, SQM3, SQM5, SQM7 SQM10,	E24 = 3/4 characters R = ohms K = kilohms	J = ±5%	Pb-free only		
		K = ±10%	B3	SQM2, SQM3	3000/box
			B2	SQM5	2000/box
			B1	SQM7, SQM10	1000/box

USA (IRC) Part Number: CVF31201JLF (CVF3, 1.2 kilohms ±5%, Pb-free)

C	V	F	3	1	2	0	1	J	L	F
1			2	3				4	5	

1 Type	2 Size	3 Value	4 Tolerance	5 Termination Finish	Packing	
CVF, CVW	2	3 digits + multiplier R = ohms for values <100 ohms	J = ±5%	LF = Pb-free	2, 3	3000/box
	3		K = ±10%		5	2000/box
	5				7, 10	1000/box
	7					
	10					

General Note
TT Electronics reserves the right to make changes in product specification without notice or liability.
All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

© TT Electronics plc