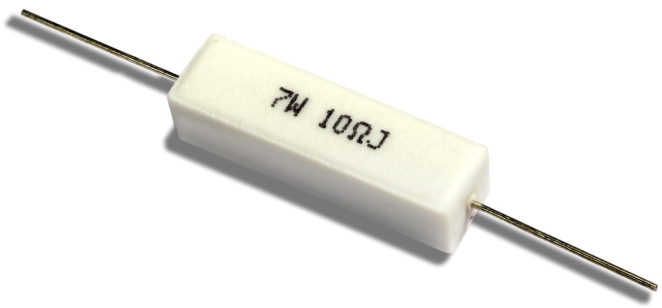
Ceramic Case Resistors - Wirewound / Metal Oxide

SQP Series



Features:

- Ratings from 2W to 25W
- Resistance from 0R1 to 200K
- High overload capability
- Flameproof ceramic case
- Inorganic potting material

All parts are Pb-free and comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

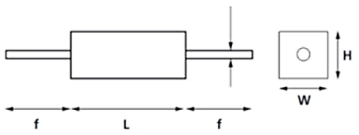
Electrical Data

		SQP2	SQP3	SQP5	SQP7S	SQP7	SQP10	SQP15	SQP20	-
Legacy type - wirewound		CAW2	CAW3	CAW5	-	CAW7	CAW10	CAW15	CAW20	CAW25
Legacy type – oxide film		CAF2	CAF3	CAF5	-	CAF7	CAF10	CAF15	CAF20	-
Power rating @70°C	W	2	3	5	7		10	15	20	25
Limiting element voltage	V	250	300	350		500	700		750	
Resistance range - wirewound	ohms	0R1 – 27R	0R1 – 39R	0R1 – 47R	0R1 – 100R	0R1 – 680R	0R1 – 910R	1R0 – 1K0	2R0 – 1K2	
Resistance range – oxide film	ohms	30R – 120K	43R – 150K	51R – 150K	110R – 150K	750R – 200K	1K0 – 200K	1K1 – 200K	1K3 – 200K	-
Resistance tolerance	%	5								
TCR	ppm/°C	<20R: 400, ≥20R: 350								
Isolation voltage	V	1000								
Standard values		E24 preferred								
Thermal impedance	°C/W	50	45	30	26		21	16	12	10
Ambient temperature range	°C	-55 to 155								

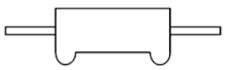
Physical Data

Dimensions in mm and weight in g

Type	L max	W max	H max	f min	d ±0.1	Wt. nom
SQP2	19	8		23	0.7	2.2
SQP3	23	9		27		3.5
SQP5		11	10	30	0.75	5
SQP7S	26	10				6
SQP7	36	11				8.2
SQP10	50					11
SQP15		13.5	12.5			17.4
SQP20	61	15.5	14.5			25
CAW25	65					26.7



Min bend radius, all types 1.6mm



Alternate body shape
CAW-A / CAF-A

Construction

SQP resistors have a high purity ceramic rod, with force fit end caps. Depending on value, the element is either wirewound or a deposited metal oxide film. This has termination wires welded to the caps and is fitted into a ceramic case with fireproof insulation cement.

Marking

Power rating, resistance value and tolerance code are legend marked onto the upper surface.

Terminations

Material Tinned copper.
Strength The terminations meet the requirements of IEC 60115-1 clause 9.5.
Solderability The terminations meet the requirements of IEC 60115-1 clause 11.1.

Flammability

The resistor will not burn or emit incandescent particles under any condition of applied temperature or overload.

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.

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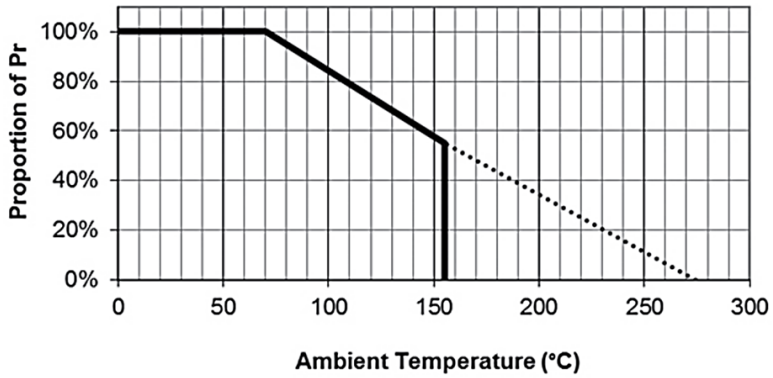
Ceramic Case Resistors - Wirewound / Metal Oxide

SQP Series

Performance Data

		Maximum (+R05)
Load at rated power: P_r for 1000 hours at 70°C	±ΔR%	≤100K: 5, >100K: 10
Short term overload: Lesser of 6.25xP_r or 2.5xLEV for 5s	±ΔR%	2
Damp heat steady state: 56 days, 40°C, ≥90% RH	±ΔR%	2
Temperature rapid change: 5 cycles, -55/155°C	±ΔR%	2
Resistance to solder heat	±ΔR%	1
Pulse handling		Data available by request

Temperature Derating



Ordering Procedure

Global Part Number Example: SQP3-1K2JB5 (SQP3, 1.2 kilohms ±5%, Pb-free)

S	Q	P	3		-	1	K	2		J	B	5	
1						2				3	4		

1 Type	2 Value	3 Tolerance	4 Packing		
SQP2	E24 = 3/4 characters R = ohms K = kilohms	J = ±5%	B5	SQP2	3600/box
SQP3				SQP3	3000/box
SQP5				SQP5	2400/box
SQP7S			B15	SQP7S	
SQP7				SQP7	1800/box
SQP10				SQP10	1500/box
SQP15			B1	SQP15	840/box
SQP20				SQP20	720/box

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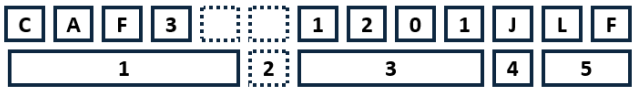
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Legacy Part Numbers

This product has a legacy part number format. This is still available for ordering, but for new designs use of the Global Part Number, where available, is recommended.

Legacy Part Number Example: CAF31201JLF (CAF3, 1.2 kilohms ±5%, Pb-free)



1 Type	2 Body Shape	3 Value	4 Tolerance	5 Termination	Packing	
CAW2, CAF2	Omit for standard A = Alternate (2, 5, 7 & 10W only)	3 digits + multiplier R = ohms for values <100 ohms	J = ±5%	LF = Pb-free	CA-2	3600/box
CAW3, CAF3					CA-3	3000/box
CAW5, CAF5					CA-5	2400/box
CAW7, CAF7					CA-7	1800/box
CAW10, CAF10					CA-10	1500/box
CAW15, CAF15					CA-15	840/box
CAW20, CAF20					CA-20	720/box
CAW25						

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