



BENNIC COMPONENTS

Sounds divider

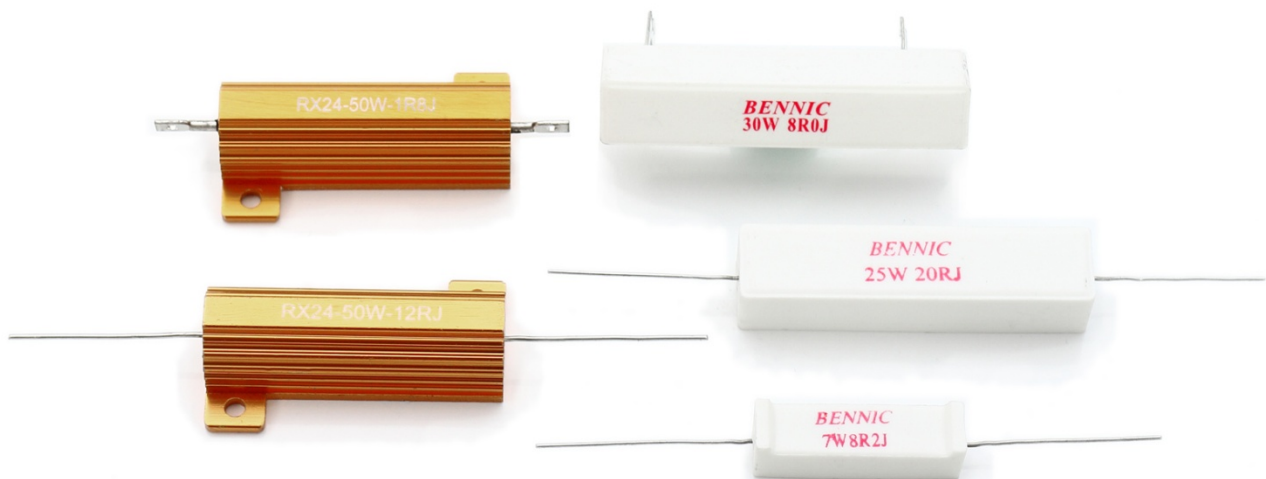
| IATF 16949 | ISO 14001 | ISO 9001 | IMDS ID:38606 |



BENNIC

CEMENT POWER RESISTORS

(For BENNIC own use for cross-over network or cable harness use only.)



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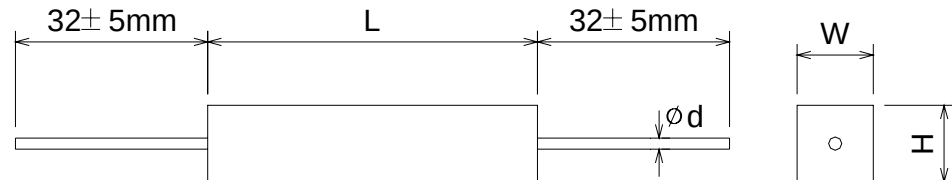
"BENNIC" SQ CEMENT POWER RESISTORS

The wire wound resistor is sealed with special nonflame cement In the ceramic package.

1. Small dimension, low price, excellent stability In high temperature humidity and shock.
2. Completely insulated for printed circuit board.
3. Wind the resistance wire on ceramic core and end weld to terminal cap, thus, resistance value is correct and with better life proof in comparison with other methods.

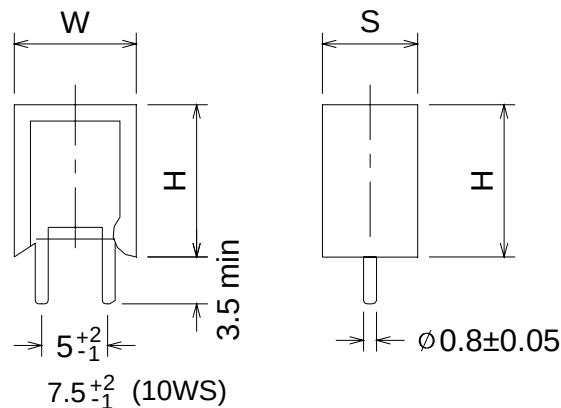
(1) DIMENSION

SQP series



	DIMENSION (unit:mm)				RANGE (Ω)	
Watts	W ± 1	H ± 1	L ± 1.5	d ± 0.05	SQP	RS+SQP
2W	7	7	18	0.8	0.1~60	61~33K
3W	8	8	22	0.8	0.1~180	181~33K
5W	10	9	22	0.8	0.1~180	181~50K
7W	10	9	35	0.8	0.1~430	431~50K
10W	10	9	48	0.8	0.1~470	471~50K
15W	12.5	12.5	48	0.8	0.5~600	601~150K
20W-25W	14	13.5	60	0.8	0.5~1K	1.1~150K
40W	20	20	90	0.8		

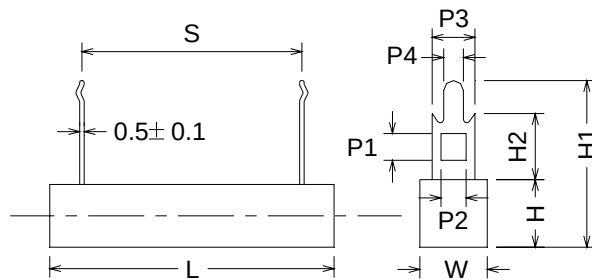
SQM series



	DIMENSION (unit:mm)			RANGE (Ω)	
Watts	H $\pm$ 1.5	W $\pm$ 1	S $\pm$ 1	SQM	RS+SQM
2W	20	12	8	0.1~60	61~33K
3W	25	12	8	0.1~180	181~33K
5W	25	13	9	0.1~180	181~50K
7W	39	13	9	0.1~430	431~50K
10WS	35	16	12	0.1~430	431~50K
10W	51	13	9	0.1~471	471~50K

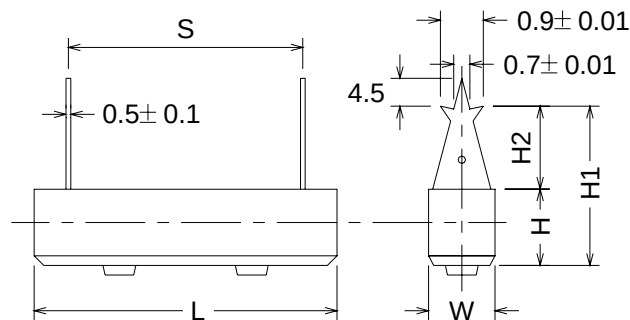


SQZ series



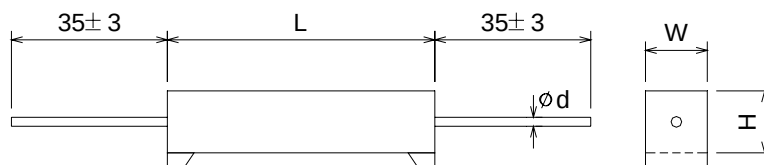
	DIMENSION (unit:mm)										RANGE (Ω)	
Watts	L ± 1.5	W ± 1.5	H ± 1.5	S ± 1.5	P1	P2	P3 ±0.5	P4 ± 0.2	H1 ± 1	H2 ± 1	SQZ	RS+SQZ
5W	25(28)	9.5	9.5	9.5(15)	4	2	7.5	1.5	26	12.5	0.1~200	201~50K
7W	36	9.5	9.5	20.5	4	2	7.5	1.5	26	12.5	0.1~500	501~50K
10W	48	9.5	9.5	34	4	2	7.5	1.5	26	12.5	0.1~800	801~50K
15W	48	12.5	12.5	34	7.5	4	10	3	34.5	15	0.1~800	801~150K
20W	63	12.5	12.5	45	7.5	4	10	3	34.5	15	10.5~1K	1.1K~150K
25W	63	12.5	12.5	45	7.5	4	10	3	34.5	15	10.5~1K	1.1K~150K

SQY series



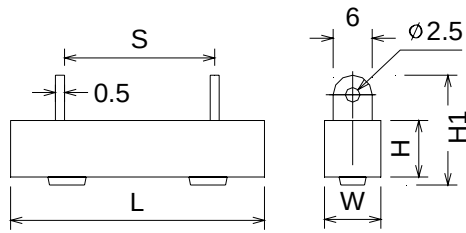
	DIMENSION (unit:mm)						RANGE (Ω)	
Watts	L ± 1.5	W ± 1	H ± 1	S ± 1.5	H1 ± 1	H2 ± 1	SQY	RS+SQY
5W	25(28)	9.5	9.5	9.5(15)	24	9.5	0.1~200	201~50K
7W	36	9.5	9.5	20.5	24	9.5	0.1~500	501~50K
10W	48	9.5	9.5	32	24	9.5	0.1~800	801~50K
15W	48	12.5	12.5	32	34.5	15	0.1~800	801~150K
20W	63	12.5	12.5	45	34.5	15	10.5~1K	1.1K~150K

SQT series

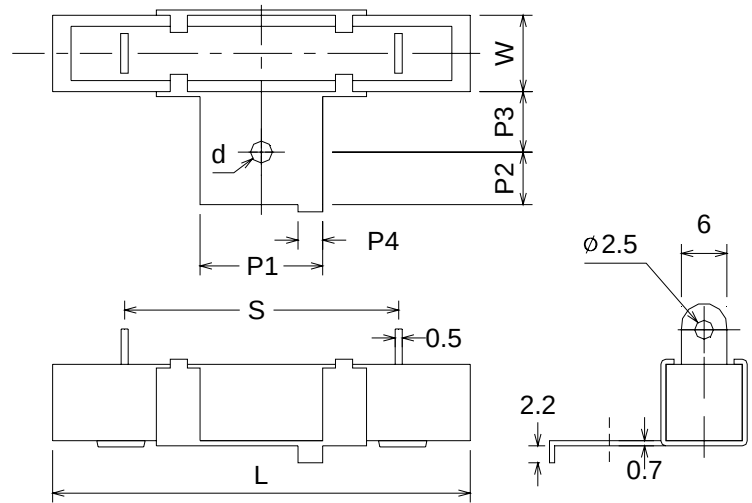


	DIMENSION (unit:mm)				RANGE (Ω)	
Watts	H ± 1.5	W ± 1	L ± 1	t ± 1	SQT	RS+SQT
5W	9	10	22	1.5	0.1~180	181~50K
7W	9	10	35	3	0.1~430	431~47K
10W	9	10	48	3	0.1~470	471~47K

SQH series

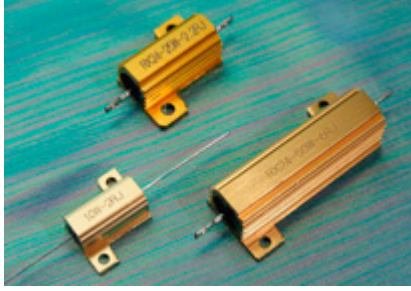


SQHG series

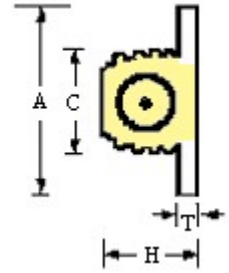
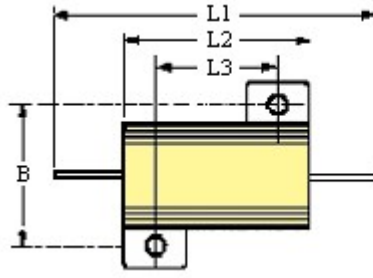


	DIMENSION (unit:mm)										RANGE (Ω)	
Watts	W ± 1	H ± 1	L ± 1.5	S ± 1	H1 ± 1	d ± 0.5	P1 ± 0.2	P2 ± 0.2	P3 ± 0.2	P4 ± 0.2	SQH	RS+SQH
10W	10.5	10.5	48	33	19.5	3.8	11	6	5.8	2.5	0.1~800	801~50K
15W	12	12.5	48	33	20.5	3.8	11	6	6.5	3	0.1~800	801~150K
20/25W	12	12.5	63	48	28	3.8	11	6	6.5	3	0.1~1K	1.1K~150K
30W	18	19	63.5	56	28	4.2	18	8	10	3	0.5~1K	~
40W	18	19	90	71	28	4.5	18	8	10	3	1.0~5K	~

ALP Series Aluminum case Wire-Wound Resistors

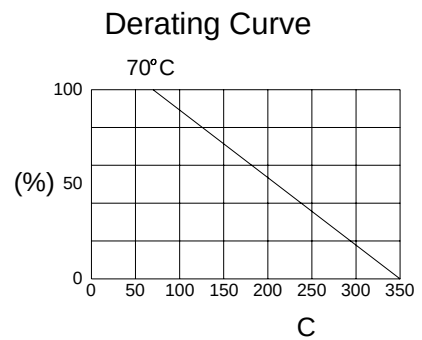
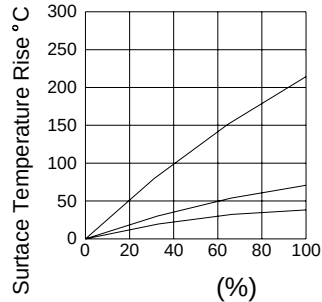
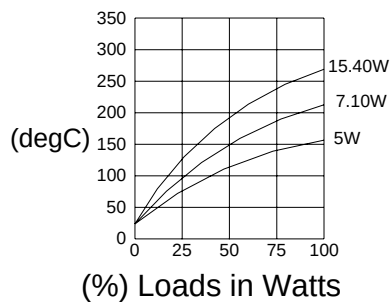


Case standard color: Gold



ALP	DIMENSION (mm)							
Watts	L1 Min	L2 ± 1	L3 ± 1	A ± 1	B ± 1	C ± 1	H ± 1	T ± 0.5
5W	25	15.5	11.5	16.5	12.5	8.5	8.5	1.6
10W	30	19	14.5	20.5	16	11	10	2
25W	45	27	18.5	27.5	20	14	14	2
50W	65	50	40	29.5	21.5	16	16	2

(2) TEMPERATURE RISE



(3) ELECTRICAL PERFORMANCE

Test Items	Condition	Spec.
Resistance Temp. Coeff	30°C ~ 200°C	±300 ppm/°C
Short Time Over Load	10 times of rated wattage for 5 sec.	±2%
Rate Load	Rate watt 30 min.	±1%
Voltage Durability	800V AC 1 min.	Not changed
Insulation Resistance	500V megger	20 MΩ
Temp. Cycle	-30°C ~ 85°C 5 cycles	±1%
Load Life	70°C on-off cycle 1000 hrs.	±5%
Moisture-proof Load Life	40°C 95% RH on-off cycle 500hrs.	±3%
Incombustibility	6 times of rated wattage for 5 min,	not flamed

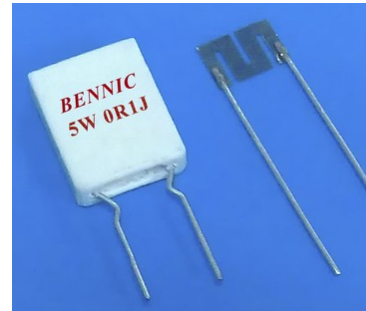


"BENNIC" CEMENT POWER RESISTORS

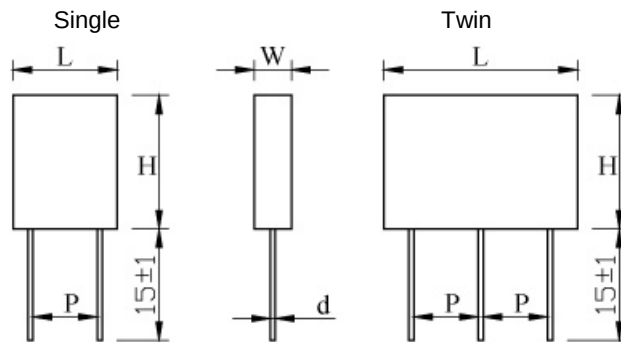
SQF series

FEATURE

1. Low inductance.
2. Safety flameproof construction.
3. Thin Light weight body save the PCB space considerably.
4. Tolerance available $\pm 10\%$, $\pm 5\%$ $\pm 2\%$.

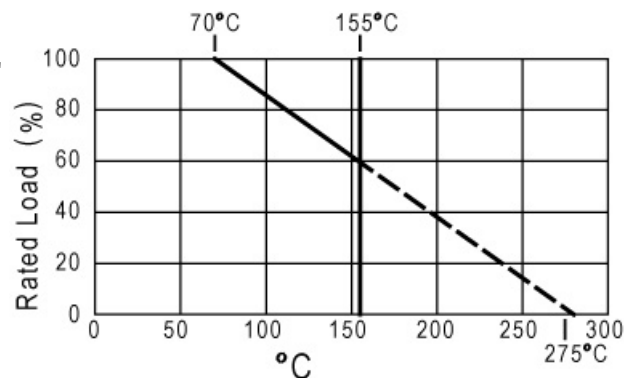


(1) DIMENSION



SQF	DIMENSION (unit:mm)					MAXIMUM WORKING VOLTAGE	MAXIMUM OVERLOAD VOLTAGE	RESISTANCE RANGE (Ω)
Watts	$L \pm 1.0$	$H \pm 1.0$	$W \pm 1.0$	$d \pm 0.1$	$p \pm 1.5$			
3W	13.5	13	5	0.75	10	350V	700V	0.1~1 Ω
3W+3W	26	13	5	0.75	10	350V	700V	0.1~1 Ω
5W	13	18	5	0.75	10	350V	700V	0.1~1 Ω
5W+5W	26	18	5	0.75	10	350V	700V	0.1~1 Ω
7W+7W	26	20	5	0.75	10	350V	700V	0.1~1 Ω

(2) DEARATING CURVE



(3) ELECTRICAL PERFORMANCE

Test Items	Condition	Spec.
Resistance Temp. Coelf	-55°C ~ 155°C	± 300 ppm/°C
Short Time Over Load	10 times of rated wattage for 5 sec.	$\pm 2\%$
Rate Load	Rate watt 30 min.	$\pm 1\%$
Voltage Durability	1,000V AC 1 min.	Not changed
Insulation Resistance	500V megger	1,000 M Ω
Load Life	70°C on-off cycle 1,000 hrs.	$\pm 5\%$
Moisture-proof Load Life	40°C 95% RH on-off cycle 1,000hrs.	$\pm 5\%$
Incombustibility	16 times of rated wattage for 5 min,	not flamed