Surface Mount Thermistors

ELECTRICAL SPECIFICATIONS

TYPE	Resistance Range	Resistance Tolerance	Beta Range	Beta Tolerance	Operating Temp.	Dissipation Constant	Thermal Time Constant	Maximum Power
SM08	2-250 kΩ	1,2,3,5,10%	3450-4500	3,2,1%	-40°C – +125°C	2.00mW/°C	2.5 sec.	250 mW
SM06	0.25-470 kΩ	1,2,3,5,10%	2750-4500	3,2,1%	-40°C – +125°C	1.50mW/°C	2.0 sec.	200 mW
SM04	0.3-470 kΩ	1,2,3,5,10%	2750-4500	3,2,1%	-40°C – +125°C	1.10mW/°C	1.5 sec.	125 mW

MECHANICAL SPECIFICATIONS

TYPE	L (mm)	L1 (mm)	W (mm)	T (mm)
SM08	2.00 ± 0.2	1.20 ± 0.2	1.25 ± 0.2	0.55 ± 0.10
SM06	1.60 ± 0.15	1.0 ± 0.15	0.80 ± 0.15	0.50 ± 0.10
SM04	1.00 ± 0.05	0.50 ± 0.05	0.50 ± 0.05	0.35 ± 0.05

PART NUMBERING SYSTEM

S	M	1	2	3	4	5	6	7	8	9	12	13	14

PRODUCT TYPE

SM	Ametherm Surface Mount

ZERO POWER RESISTANCE AT 25°C (R_{25})

103	$10x10^2\Omega=1000\Omega$
253	$25x10^3\Omega=25000\Omega$
474	$47x10^4\Omega=47000\Omega$
503	$50x10^3\Omega=50000\Omega$

TOLERANCE

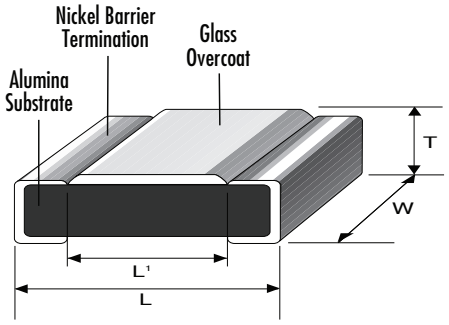
(Blank)	J	H	G	F
±10%	±5%	±3%	±2%	±1%

BETA

275	2750 K
302	3000 K
345	3450 K
411	4110 K
452	4500 K

Custom

SIZE	L (mm)	L1 (mm)	W (mm)	T (mm)
08	2.00 ± 0.2	1.20 ± 0.2	1.25 ± 0.2	0.55 ± 0.10
06	1.60 ± 0.15	1.0 ± 0.15	0.80 ± 0.15	0.50 ± 0.10
04	1.00 ± 0.05	0.50 ± 0.05	0.50 ± 0.05	0.35 ± 0.05



APPLICATIONS

- Temperature Compensation Circuits
- Relay Coils
- LCD Controls
- Temperature Measurement

FEATURES

- Nickel Barrier Termination
- Suitable for wave or reflow solder
- Packaging T/R STD QTY 100-5000
- Moisture Sensitivity Level: 2

SOLDERING WAVE OR REFLOW

TIME	TEMP
10 sec.	270°C

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AMETHERM
Circuit Protection Thermistors

Surface Mount Thermistors

	Part Number	R (KΩ)	Beta (°K)	Dissipation Constant (mW/°C)	Thermal Time Constant	Max Power
SM04	SM04301275	0.3	2750	1.10 mW/°C	1.5 sec	125 mW
	SM04501275	0.5	2750	1.10 mW/°C	1.5 sec	125 mW
	SM04102302	1	3000	1.10 mW/°C	1.5 sec	125 mW
	SM04202302	2	3000	1.10 mW/°C	1.5 sec	125 mW
	SM04502345	5	3450	1.10 mW/°C	1.5 sec	125 mW
	SM04103372	10	3700	1.10 mW/°C	1.5 sec	125 mW
	SM04103395	10	3950	1.10 mW/°C	1.5 sec	125 mW
	SM04103411	10	4111	1.10 mW/°C	1.5 sec	125 mW
	SM04253411	25	4111	1.10 mW/°C	1.5 sec	125 mW
	SM04503411	50	4111	1.10 mW/°C	1.5 sec	125 mW
	SM04104411	100	4111	1.10 mW/°C	1.5 sec	125 mW
	SM04253452	25	4500	1.10 mW/°C	1.5 sec	125 mW
	SM04503452	50	4500	1.10 mW/°C	1.5 sec	125 mW
	SM04104452	100	4500	1.10 mW/°C	1.5 sec	125 mW
	SM04474452	470	4500	1.10 mW/°C	1.5 sec	125 mW
SM06	SM06251275	0.25	2750	1.50 mW/°C	2.0 sec	200 mW
	SM06501302	0.5	3000	1.50 mW/°C	2.0 sec	200 mW
	SM06102345	1	3450	1.50 mW/°C	2.0 sec	200 mW
	SM06202345	2	3450	1.50 mW/°C	2.0 sec	200 mW
	SM06502345	5	3450	1.50 mW/°C	2.0 sec	200 mW
	SM06103345	10	3450	1.50 mW/°C	2.0 sec	200 mW
	SM06103372	10	3700	1.50 mW/°C	2.0 sec	200 mW
	SM06103395	10	3950	1.50 mW/°C	2.0 sec	200 mW
	SM06253395	25	3950	1.50 mW/°C	2.0 sec	200 mW
	SM06503395	50	3950	1.50 mW/°C	2.0 sec	200 mW
	SM06104411	100	4111	1.50 mW/°C	2.0 sec	200 mW
	SM06154411	150	4110	1.50 mW/°C	2.0 sec	200 mW
	SM06503452	50	4500	1.50 mW/°C	2.0 sec	200 mW
	SM06104452	100	4500	1.50 mW/°C	2.0 sec	200 mW
	SM06474452	470	4500	1.50 mW/°C	2.0 sec	200 mW
SM08	SM08202345	2	3450	2.00 mW/°C	2.5 sec	250 mW
	SM08502345	5	3450	2.00 mW/°C	2.5 sec	250 mW
	SM08103345	10	3450	2.00 mW/°C	2.5 sec	250 mW
	SM08502395	5	3950	2.00 mW/°C	2.5 sec	250 mW
	SM08103395	10	3950	2.00 mW/°C	2.5 sec	250 mW
	SM08253395	25	3950	2.00 mW/°C	2.5 sec	250 mW
	SM08503395	50	3950	2.00 mW/°C	2.5 sec	250 mW
	SM08103411	10	4111	2.00 mW/°C	2.5 sec	250 mW
	SM08253411	25	4111	2.00 mW/°C	2.5 sec	250 mW
	SM08503411	50	4111	2.00 mW/°C	2.5 sec	250 mW
	SM08104411	100	4111	2.00 mW/°C	2.5 sec	250 mW
	SM08503452	50	4500	2.00 mW/°C	2.5 sec	250 mW
	SM08104452	100	4500	2.00 mW/°C	2.5 sec	250 mW
	SM08154452	150	4500	2.00 mW/°C	2.5 sec	250 mW
	SM08254452	250	4500	2.00 mW/°C	2.5 sec	250 mW

ZERO POWER RESISTANCE CURVE

Temp (°C)	1kΩ 2750K	1kΩ 3000K	1kΩ 3200K	10kΩ 3450K	10kΩ 3700K	10kΩ 3900K	10kΩ 4100K	100kΩ 4300K	100kΩ 4500K	100kΩ 4700K
-40	11290	14270	17200	217300	274600	331000	399100	4812000	5802000	6995000
-35	9012	11130	13180	162800	201100	238200	282000	3339000	3954000	4682000
-30	7248	8761	10200	123300	149000	173400	201800	2349000	2734000	3182000
-25	5872	6953	7959	94240	111600	127700	146200	1674000	1916000	2193000
-20	4791	5561	6265	72720	84410	95100	107100	1207000	1360000	1532000
-15	3935	4481	4972	56620	64470	71530	79370	880600	977100	1084000
-10	3253	3636	3976	44450	49690	54330	59400	649400	710000	776300
-5	2705	2971	3202	35170	38630	41640	44890	483900	521600	562200
0	2262	2443	2597	28040	30280	32200	34240	364000	387100	411600
5	1902	2020	2120	22520	23920	25100	26340	276400	290100	304400
10	1608	1681	1742	18210	19040	19730	20440	211800	219400	227400
15	1366	1406	1440	14820	15260	15620	15990	163600	167500	171400
20	1166	1183	1197	12140	12310	12450	12600	127400	128900	130400
25	1000	1000	1000	10000	10000	10000	10000	100000	100000	100000
30	861.3	849.5	840.1	8286	8172	8082	7993	79050	78180	77320
35	745	725	709.4	6903	6718	6573	6432	62930	61580	60250
40	647	621.5	601.8	5782	5554	5378	5208	50400	48840	47300
45	564.1	535.1	513	4867	4617	4426	4243	40680	39000	37390
50	493.6	462.6	439.2	4116	3858	3663	3477	33020	31350	29760
55	433.5	401.5	377.7	3498	3240	3047	2866	26950	25350	23840
60	382.1	349.9	326.1	2986	2734	2548	2375	22130	20620	19220
65	337.9	306	282.6	2560	2318	2141	1978	18270	16880	15590
70	299.8	268.6	246	2203	1974	1808	1656	15160	13880	12720
75	266.8	236.5	214.8	1904	1688	1533	1392	12650	11480	10430
80	238.2	209	188.3	1652	1450	1306	1177	10600	9548	8601
85	213.3	185.3	165.6	1439	1251	1118	998.8	8927	7978	7130
90	191.5	164.8	146.2	1258	1083	960.2	851.5	7552	6698	5940
95	172.4	147	129.4	1103	940.9	828.2	729	6417	5649	4972
100	155.7	131.5	115	971.3	820.6	717.1	626.7	5476	4785	4182
105	140.9	118	102.4	857.7	718.3	623.2	540.8	4692	4072	3533
110	127.9	106.2	91.52	759.8	630.9	543.6	468.5	4037	3479	2998
115	116.4	95.82	82.02	675.3	555.9	475.9	407.3	3486	2984	2554
120	106.1	86.68	73.71	601.9	491.5	418	355.4	3022	2570	2186
125	97	78.61	66.42	538.1	435.9	368.3	311.2	2630	2222	1877

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