

Surface Mount Film Resistors

Vishay



FEATURES

- Thick and thin film resistor chips
- Metal film MELF resistors
- CECC and MIL approved styles
- Suitable for auto-Insertion equipment

PRODUCT DESCRIPTION	TYPE	WATTS AT 70°C	T.C. ppm/°C	TOLERANCE ± %		RESISTANCE RANGE Ω	DIMENSIONS (mm NOMINAL)		
				MIN.	MAX.		BODY WIDTH	BODY LENGTH	BODY HEIGHT
Thick Film Chip Resistors <small>CECC approval available Zero ohm version available in all sizes</small>	CRCW0201	0.050	200	5.0	5.0	10-1M	0.30	0.60	0.23
	D10/CRCW0402	0.063	100-200	1.0	5.0	1-10M	0.50	1.00	0.35
	D11/CRCW0603	0.100	100-200	1.0	5.0	1-10M	0.85	1.55	0.45
	D12/CRCW0805	0.125	100-200	1.0	5.0	1-10M	1.25	2.00	0.45
	D25/CRCW1206	0.250	100-200	1.0	5.0	1-10M	1.60	3.20	0.55
	CRCW1210	0.330	100-200	1.0	5.0	1-1M	2.50	3.20	0.55
	CRCW1218	1.000	100-200	1.0	5.0	1-2.2M	4.60	3.20	0.55
	CRCW2010	0.500	100-200	1.0	5.0	1-10M	2.50	5.00	0.60
	CRCW2512	1.000	100-200	1.0	5.0	1-10M	3.15	6.30	0.60
Thick Film Precision Chip Resistors	D10P/CRCW0402	0.063	25-50-100	0.25	1	10R-1M0	0.50	1.00	0.35
	D11P/CRCW0603	0.100	25-50-50-100	0.25	1	10R-1M0	0.85	1.55	0.45
	D12P/CRCW0805	0.125	25-50-50-100	0.25	1	10R-1M0	1.25	2.00	0.45
	D25P/CRCW1206	0.250	25-50-50-100	0.25	1	10R-1M0	1.60	3.20	0.55
	CRCW1210	0.330	50-100	0.5	0.5	100R-1M0	2.50	3.20	0.55
	CRCW1218	1.000	50-100	0.5	1	100R-2M2	4.60	3.20	0.55
	CRCW2010	0.500	50-100	0.5	1	10R-10M	2.50	5.00	0.60
	CRCW2512	1.000	50-100	0.5	1	10R-10M	3.15	6.30	0.60
Thick Film Low Value Chip Resistors	D10LR/CRCW0402	0.063	400-600	5.0	5.0	0.22-0.91	0.50	1.00	0.35
	D11LR/CRCW0603	0.100	200-400	5.0	5.0	0.10-0.91	0.85	1.55	0.45
	D12LR/CRCW0805	0.125	200-300	5.0	5.0	0.10-0.91	1.25	2.00	0.45
	D25LR/CRCW1206	0.250	200-300	5.0	5.0	0.10-0.91	1.60	3.20	0.55
	CRCW1210	0.330	200	5.0	5.0	0.10-0.91	2.50	3.20	0.55
	CRCW1218	1.000	200	5.0	5.0	0.10-0.91	4.60	3.20	0.55
	CRCW2010	0.500	200	5.0	5.0	0.10-0.91	2.50	5.00	0.60
	CRCW2512	1.000	200	5.0	5.0	0.10-0.91	3.15	6.30	0.60
	NCT 0603	0.125	100	5		0.22-0.91	0.85	1.55	0.45
	NCU 0805	0.2	100	5		0.22-0.91	1.25	2	0.45
	Thick Film High Value Chip Resistors	D11HR/CRCW0603	0.100	500	5.0	5.0	11M-470M	0.850	1.55
D12HR/CRCW0805		0.125	500	5.0	5.0	11M-470M	1.250	2.00	0.45
D25HR/CRCW1206		0.250	500	5.0	5.0	11M-470M	1.600	3.20	0.55
OCT 0603			100-250	5		11M-130M	0.85	1.55	0.45
OCU 0805			100-250	5		11M-130M	1.25	2	0.45



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				MIN.	MAX.		BODY WIDTH	BODY LENGTH	BODY HEIGHT
Thick Film Adjustable Chip Resistors Untrimmed	D10TR	0.063	100-200	10-30..0	20	0.47-10M	0.500	1.00	0.35
	D11TR	0.100	100-200	10-30...0	20	0.47-10M	0.850	1.55	0.45
	D12TR	0.125	100-200	10-30...0	20	0.47-10M	1.250	2.00	0.45
	D25TR	0.250	100-200	10-30...0	20	0.47-10M	1.600	3.20	0.55
	CRCW1210	0.330	200	15+15	15	10-4.7M	2.500	3.20	0.55
	CRCW2010	0.500	200	15+15	15	10-4.7M	2.500	5.00	0.60
	CRCW2512	1.000	200	15+15	15	10-4.7M	3.150	6.30	0.60
	TCT 0603	0.1	50-100	-10 -30...0		10-1M	0.85	1.55	0.45
	TCU 0805	0.125	50-100	-10 -30...0		10-1M	1.25	2	0.45
TCA 1206	0.25	100	-20 ...0		10-1M	1.6	3.2	0.55	
Thick Film Automotive Grade Chip Resistors Sulfur Resistant Excellent stability in critical environmental conditions Zero ohm available on all sizes	RCA0402	0.063	50-200	0.5	5	100-1M	0.50	1.00	0.35
	RCA0603	0.1	50-200	0.5	5	100-10M	0.85	1.55	0.45
	RCA0805	0.125	50-200	0.5	5	100-10M	1.25	2.00	0.45
	RCA1206	0.25	50-200	0.5	5	100-10M	1.60	3.20	0.55
	RCA1210	0.33	50-200	0.5	5	100-1M	2.50	3.20	0.55
	RCA1218	1	50-200	0.5	5	100-2.2M	4.60	3.20	0.55
	RCA2010	0.5	50-200	0.5	5	100-10M	2.50	5.00	0.60
	RCA2512	1	50-200	0.5	5	100-10M	3.15	6.30	0.60
Thick Film Chip Resistors Space qualified Top or wraparound terminations	CR1	0.100	100-200	1	20	100-500K	1.020	1.270	0.305
	CR5050	0.100	100-200	1	20	100-500K	1.270	1.270	0.254
	CR2	0.200	100-200	1	20	100-1M	1.270	1.900	0.381
	CR3	0.250	100-200	1	20	100-1M	1.270	2.540	0.381
	CR1010	0.450	100-200	1	20	100-1M	2.540	2.540	0.508
	CR1206	0.300	100-200	1	20	100-1M	1.570	3.180	0.635
	CR4	0.325	100-200	1	20	100-1M	1.270	3.810	0.381
	CR5	0.525	100-200	1	20	100-1M	1.900	5.720	0.381
	CR2010	0.575	100-200	1	20	100-1M	2.540	5.080	0.508
High Voltage Thick Film Chip Resistors Up to 3000 volts top or wraparound terminations Very high ohmic value	CRHV1206	0.300	100	1	20	2M-8G	1.600	3.180	0.635
	CRHV1210	0.450	100	1	20	4M-10G	2.540	3.180	0.635
	CRHV2010	0.500	100	1	20	6M-35G	2.540	5.080	0.635
	CRHV2510	0.600	100	1	20	10M-40G	2.540	6.350	0.635
	CRHV2512	0.700	100	1	20	12M-50G	3.200	6.350	0.635

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				MIN.	MAX.		BODY WIDTH	BODY LENGTH	BODY HEIGHT
Thick Film Chip Resistors Wrap-around or one-surface terminations Industrial and Mil style to MIL-PRF-55342 To order MIL styles add "M" to part number ie. RC = RCM RCWP = RCWPM Wattage ratings for MIL styles are per MIL spec. *no MIL equivalent	RC-550	0.1	100-300	1	20	2-4.7M	1.27	1.27	0.508
	RCWP/RCW-550	0.1	100-300	1	20	2-4.7M	1.27	1.40	0.508
	RC-575	0.15	100-300	1	20	2-10M	1.27	1.91	0.508
	RCWP/RCW-575	0.15	100-300	1	20	2-10M	1.27	2.03	0.508
	RC-5100	0.2	100-300	1	20	3-15M	1.27	2.54	0.508
	RCWP/RCW-5100	0.20	100-300	1	20	3-15M	1.27	2.67	0.508
	RC-5150	0.35	100-300	1	20	3-20M	1.27	3.81	0.508
	RCWP/RCW-5150	0.35	100-300	1	20	3-20M	1.27	3.94	0.508
	RC-1100	0.4	100-300	1	20	3-7.5M	2.54	2.54	0.508
	RCWP/RCW-1100	0.4	100-300	1	20	3-7.5M	2.54	2.67	0.508
	RC-7225	0.6	100-300	1	20	3-20M	1.91	5.72	0.508
	RCWP/RCW-7225	0.6	100-300	1	20	3-20M	1.91	5.84	0.508
	RC-2010	0.8	100-300	1	20	3-20M	2.54	5.08	0.508
	RCWP/RCW-2010	0.8	100-300	1	20	3-20M	2.54	5.21	0.508
	RC-2512	1	100-300	1	20	5-20M	3.18	6.35	0.508
	RCWP/RCW-2512	1	100-300	1	20	5-20M	3.18	6.48	0.508
	RC-1206	0.25	100-300	1	20	3-15M	1.52	3.05	0.508
	RCWP/RCW-1206	0.25	100-300	1	20	3-15M	1.52	3.18	0.508
	RC-540*	0.08	100-300	1	20	3-4.7M	1.02	1.27	0.508
	RCWP/RCW-540*	0.08	100-300	1	20	3-4.7M	1.02	1.40	0.508
RCWP-0603	0.07	100-300	1	20	3-1M	0.79	1.60	0.508	
Thick Film Chip Resistors K = 100ppm L = 200ppm 500ppm on request Meets the requirements of CECC 40000 / 40401 NFC 83240 UTE 8324 STYLE RR also available CHP HR High reliability chip resistors for SMD and hybrid applications comply with ESA SCC 4001 specification	CHP0502	0.050	100-200	0.5	10	0.5-25M	0.780	1.420	0.520
	CHP0505	0.125	100-200	0.5	10	0.5-10M	1.420	1.420	0.650
	CHP0603	0.125	100-200	0.5	10	0.5-25M	0.950	1.750	0.520
	CHP0705	0.200	100-200	0.5	10	0.5-25M	1.420	2.110	0.650
	CHP0805	0.200	100-200	0.5	10	0.5-25M	1.420	2.230	0.650
	CHP1005	0.250	100-200	0.5	10	0.5-50M	1.420	2.740	0.650
	CHP1206	0.250	100-200	0.5	10	0.5-50M	1.750	3.450	0.650
	CHP1505	0.500	100-200	0.5	10	0.5-75M	1.420	4.060	0.650
	CHP1010	0.500	100-200	0.5	10	0.5-25M	2.740	2.740	0.650
	CHP2208	0.750	100-200	0.5	10	0.5-100M	2.110	5.970	0.650
	CHP1020	1.000	100-200	0.5	10	0.5-10M	5.330	2.740	0.650
	CHP2010	1.000	100-200	0.5	10	0.5-100M	2.740	5.310	0.650
	CHP2512	2.000	100-200	0.5	10	0.5-100M	3.430	6.600	0.650
Precision S.M. Res. Metal Film Watts at 25°C *25ppm on request	MSP 1C	0.500	25-50	0.1	1	10-332K	3.800	6.900	3.800
	MSP 2C	1.000	50*	0.1	1	10-1M	7.000	11.400	5.000
Thin Film Chip Resistors Precision Chips Industrial	M10	0.063	25-50	0.1	1	10-22K	0.500	1.000	0.350
	M11	0.100	25-50	0.1	1	10-56K	0.850	1.550	0.450
	M12	0.125	25-50	0.1	1	10-100K	1.250	2.000	0.450
	M25	0.250	25-50	0.1	1	10-330K	1.600	3.200	0.550



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				MIN.	MAX.		BODY WIDTH	BODY LENGTH	BODY HEIGHT
Thin Film Chip Resistors Si-Fusible	M25SI	0.250	100	5.0	–	1-3K92	1.600	3.200	0.550
Thin Film Chip Resistors Precision Chips Industrial and MIL - style RM per MIL-PRF-55342	TNPWM-1206	0.125	25-50	0.1	5	49.9-1M	1.60	3.20	0.61
	TNPW-0402	0.063	25-100	0.5	1	10-100K	0.50	1.00	0.35
	TNPW-0603	0.1	25-100	0.1	1	10-330K	0.81	1.60	0.40
	TNPW-0805	0.125	15-50	0.1	1	10-252K	1.24	2.00	0.40
	TNPW-1206	0.25	15-100	0.1	1	10-1M	1.60	3.20	0.61
	TNPW-1210	0..33	25-50	0.1	1	22.1-1M	2.49	3.20	0.61
	TNPW-2010	0.4	25-50	0.1	1	22.1-362K	2.50	5.00	0.61
	TNPW-2512	0.5	25-50	0.1	1	22.1-700K	3.10	6.30	0.61
Thin Film Chip Resistors Professional	MCS 0402	0.1	25-50	0.5	1	10-4.99M	0.5	1	0.32
	MCT 0603	0.125	25-50	0.5	1	1-10M	0.85	1.55	0.45
	MCU 0805	0.2	25	0.5		10-332K	1.25	2	0.45
Thin Film Chip Resistors Precision	MCT 0603	0.032	10-15-25	0.1	0.25	47-150K	0.85	1.55	0.45
	MCU 0805	0.05	10-15-25	0.1	0.25	47-332K	1.25	2	0.45
	MCA 1206	0.1	25	0.1	0.1	47-332K	1.6	3.2	0.55
Thin Film Chip Resistors Precision	MCT 0603 HF	0.125	50	2		6.8-470	0.85	1.55	0.45
Thin Film Precision Resistor Chips QPL M55342 Qualified and E-Rel 100% Screening and extensive lot testing	M55342/02	0.050	100-300	1	10	20-470K	1.400	1.400	0.508
	M55342/03	0.100	100-300	1	10	20-470K	1.400	2.840	0.508
	M55342/04	0.150	100-300	1	10	20-1M	1.400	4.110	0.762
	M55342/06	0.100	100-300	1	10	20-1M	1.400	2.180	0.762
Thin Film Resistor Chips Commercial High Reliability chip with same stability found in military grade chips	M 0505	0.125	70	1		10-25M	1.397	1.550	0.520
	M 0603	0.125	70	1		10-25M	0.940	1.850	0.650
	M 0705	0.200	70	1		10-25M	1.397	2.180	0.650
	M 0805	0.200	70	1		10 -25M	1.397	2.180	0.650
	M 1005	0.250	70	1		10-25M	1.397	2.840	0.650
	M 1010	0.500	70	1		10-25M	2.667	2.840	0.650
	M 1206	0.330	70	1		10-25M	1.727	3.400	0.650
	M 1505	0.350	70	1		10-25M	1.397	4.115	0.650
	M 2010	1.000	70	1		10-25M	2.616	5.537	0.650
	M 2208	0.750	70	1		10-25M	2.032	6.020	0.650
	M 2512	2.000	70	1		10-25M	3.277	6.807	0.650

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				MIN.	MAX.		BODY WIDTH	BODY LENGTH	BODY HEIGHT
Thin Film MELF Resistors Professional CECC Approved	MMU 0102	0.2/0.3	25-50	0.5	5	0.22-2.21M	ø1.1	2.2	–
	SMM 0102	0.200	15-25-50	0.1	1	10-2.21M	ø1.100	2.2	–
	MMA 0204	0.25/0.4	25-50	0.5	5	0.22-10M	ø1.4	3.6	–
	SMM0204/MS1	0.250	15-25-50-100	0.1	5.0	0.22-10M	ø1.400	3.6	–
	MMB 0207	0.4/1.0	25-100	0.5	5	0.1-8.2M	ø2.2	5.8	–
Thin Film MELF Resistors Precision CECC Approved	MMU 0102	0.06/0.2	15-25	0.1	0.5	100-221K	ø1.1	2.2	–
	MMA 0204	0.07/0.25	15-25	0.1	0.5	10-332K	ø1.4	3.6	–
	PMM0204	0.125	5-10-15-20-50	0.1	0.25	100-221K	ø1.4	3.6	–
	MMB 0207	0.11/0.4	15-25	0.1	0.25	15-1M	ø2.2	5.8	–
	SMM0207	1.000	50-100	0.5	5.0	0.16-10M	ø2.2	5.8	–
	PMM0207	0.40	5-20-25-50	0.1	0.5	100-511K	ø2.2	5.8	–
Thin Film MELF Resistors Ultra Precision CECC Approved	UMA 0204	0.07/0.25	5-10-15	0.02	0.25	22-221K	ø1.4	3.0	–
Thin Film MELF Resistors High Frequency	MMU 0102 HF	0.2/0.3	50	2.0	–	6.8-470	ø1.1	2.2	–
	MMA 0204 HF	0.25/0.4	50	1.0	–	1.5-475	ø1.4	3.6	–
	MMB 0207 HF	0.4/1.0	50	2.0	–	6.8-470	ø2.2	5.8	–
	SMM0204HF/MS1HF	0.25	50	1.0	–	10R-1K	ø1.4	3.6	–
Thin Film MELF Resistors Si-Fusible	LCM0207Si	0.250	+ 300/- 250	5.0		0.22-1K	ø2.2	5.8	–
	NMM0207Si	0.350	+ 4500 ± 500	5.0	20.0	0.10-47K	ø2.2	5.8	–
Thin Film MELF Resistors Zero Ohm CECC Approved	MMU 0102 0R0	ZERO OHM BRIDGING LINK - 2A		–		≤ 0.01	ø1.1	2.2	–
	MMA 0204 0R0	ZERO OHM BRIDGING LINK - 3A		–		≤ 0.01	ø1.4	3.6	–
	MMB 0207 0R0	ZERO OHM BRIDGING LINK - 5A		–		≤ 0.01	ø2.2	5.8	–
	OMM0204	ZERO OHM BRIDGING LINK - 2A		–		≤ 0.01	ø1.4	3.6	–
	OMM0207	ZERO OHM BRIDGING LINK - 5A		–		≤ 0.01	ø2.2	5.8	–
Carbon Film MELF Resistors High Pulse Load	CMA 0204	0.25/0.4	–	2	–	10-100K	ø1.4	3.6	–



PRODUCT DESCRIPTION	TYPE	PRODUCT	T.C. ppm/°C	VALUE RANGE	TOLERANCE %	SERIES	QUANTITY pcs
Mini-Labs Chip and MELF	LAB1	(D25/CRCW1206)	200	10R-1M0, 0R0	5	E24	122x50
	LAB1A	(D12/CRCW0805)	200	10R-1M0, 0R0	5	E24	122x50
	LAB1B	(D11/CRCW0603)	200	10R-1M0, 0R0	5	E24	122x50
	LAB1F	(D10/CRCW0402)	200	10R-1M0, 0R0	5	E24	122x50
	LAB1C	(D25/CRCW1206)	100	10R-1M0, 0R0	1	E48	242x50
	LAB1D	(D12/CRCW0805)	100	10R-1M0, 0R0	1	E48	242x50
	LAB1E	(D11/CRCW0603)	100	10R-1M0, 0R0	1	E48	242x50
	LAB2	(SMM0204/MS1)	50	10R-1M0, 0R0	1	E24	122x50
	LAB3	(M11)	25	100R-33K2	0.5	E48	122x50
	LCT 24	(MCT 0603)	50	10R-10M, 0R0	1	E24	144x45
	LCT 48	(MCT 0603)	50	10R-10M, 0R0	1	E48	266x45
	LCT 96	(MCT 0603)	50	10.2R-9.53M, 0R0	1	(E96-E48)	265x45
	LMU 24	(MMU 0102; (MMU 0102 HF)	50	0.22R-2.2M, 0R0 6.8-470	1, 2, 5 2	E24 E6	167x45
	LMU 48	(MMU 0102)	50	0.22R-2.15M, 0R0	1, 2, 5	E48	266x45
	LMU 96	(MMU 0102)	50	0.27R-2.21M, 0R0	1, 2, 5	(E96-E48)	266x45
	LMA 24	(MMA 0204; MMA 0204 HF)	50	0.22R-10M, 0R0 4.7-470	1, 5 2	E24 E6	177x45
	LMA 48	(MMA 0204)	50	0.22R-10M, 0R0	1, 5	E48	298x45
	LMA 96	(MMA 0204)	50	0.24R-9.53M, 0R0	1, 5	(E96-E48)	297x45
	LMB 24	(MMB 0207)	50	0.22R-8.2M, 0R0	1, 5	E24	180x50
	PRODUCT DESCRIPTION	TYPE	PRODUCT	SIZES AVAILABLE	VALUE RANGE	TOLERANCE %	QUANTITY
Thick Film Chip Resistor Engineering Design Kit, Surface Mount <small>Pick of the chips</small>	KIT 1	CRCWXXXX-101	0402-1206	51.1-200K	1	74 Values, 500 pcs each	
	KIT 2A	CRCWXXXX-102A	0402-1206	51.1-150K	1	30 Values, 100 pcs each	
	KIT 2B	CRCWXXXX-102B	0402-1206	60.4-200K	1	30 Values, 100 pcs each	
	KIT 3	CRCWXXXX-103	0402-1206	80.6-88.7K	1	15 Values, 100 pcs each	
	KIT 4	CRCWXXXX-104	0201-1206	10-1M	5	30 Values, 100 pcs each	
	KIT 5	CRCWXXXX-105	0201-1206	33-100K	5	15 Values, 100 pcs each	
	KIT 6	CRCWXXXX-106	0402-1206	49.9-1M	1	12 Values, 100pcs each	

Fixed Film Resistors - Precision

Vishay



FEATURES

- Temperature coefficients of 25ppm down to 5ppm
- Power ratings from 0.1 watt to 4 watts
- Metal film construction
- Styles approved to MIL, BSCECC, DIN, UTE, NF C (please see Q.P.L. for resistance ranges.)

PRODUCT DESCRIPTION/ POWER RATING AT 70°	TYPE	T.C. ppm/°C	TOL. ± %		RES. RANGE Ω	DIMENSIONS MAX (mm)			SPECIAL CHARACTERISTICS
			MIN	MAX		BODY Ø	BODY LENGTH	LEAD Ø	
Ultra Precision Metal Film Resistors 0.1 watt to 0.5 watts	UXA 0204	2-5-10	0.01	0.25	22-221K	1.6	3.6	0.5	
	UXB 0207	2-5-10	0.01	0.25	10-1M	2.5	6.3	0.6	
	UXE 0414	5-10	0.05	0.1	22-511K	4	11.9	0.8	
Precision Metal Film Res. 0.05 watts	PTF-51	5-15	0.02	1	15-100K	2.03	4.32	0.41	100% Laser Spiralled
	3H3	25	0.50	1	49.9-1M	2.03	4.32	0.460	
0.063 watts	RCMT01	15-25	0.10	1	10-100K	2.03	4.32	0.60	CECC / MIL / NF C
Precision Metal Film Resistors 0.1 watt	3H4	25	0.50	1	10-1M	3.56	7.15	0.690	ESA Approval/rated at 125°C MIL RNC50/RNR50 MIL Style RN55
	ERC-50	25-100	0.1	1	10-796K	2.03	4.32	0.41	
	NP4S	25	0.10	1	49.9-1M	2.50	7.10	0.600	
Precision Metal Film Resistors 0.125 watt <small>* 0.05 on request</small>	3H5	25	0.50	1	10-1M	4.20	11.10	0.690	ESA Approved/rated at 125°C MIL RN50 MIL RNC55/RNR55 Commercial Hermetic MIL RNR55 Hermetic MIL Style RN60 MI /UT /DIN/BS /CECC BS /CECC/ DIN/UTE Matched Sets Available Power Rating at 85°C CECC / UTE
	CMF-50	25-150	0.1	1	10-1M	2.03	4.32	0.46	
	ERC-55	25-100	0.1	1	10-2M	2.54	7.14	0.64	
	GSR55	15-50	0.05	1	10-2.5M	3.02	7.62	0.635	
	HDN55	25-50	0.10	1	10-1.21M	3.02	7.62	0.635	
	NP5	25	0.10	1	49.9-1M	3.80	10.00	0.600	
	NT3S	15	0.10	1	100-200K	1.80	3.90	0.500	
	PMA0207	5-10-15-25	0.05*	0.5	100-511K	2.50	6.30	0.600	
	PTF-56	5-15	0.01	1	15-500K	2.54	7.14	0.64	
	RCME02	5-10-15-25	0.10	1	100-100k	2.50	6.70	0.600	
RCMT02	15-25	0.10	1	10-332k	2.50	6.70	0.600		
Precision Metal Film Resistors 0.25 watts <small>* for lower stability requirements ** 0.05 on request</small>	ERC-55-200	25-100	0.1	1	10-2M	2.62	7.62	0.64	MIL RNC60/RNR60 Commercial Hermetic Commercial Hermetic MIL RNR57 Hermetic MIL RNR60 Hermetic BS/CECC/DIN/MIL/UTE BS /CECC DI N/MIL/UTE Matched Sets Available CECC / MIL-R-10509F Rated at 85°C CECC / UTE
	GSR57	15-50	0.05	1	10-2.5M	4.19	9.02	0.635	
	GSR60	15-50	0.05	1	10-3M	4.19	11.69	0.635	
	HDN57	25-50	0.10	1	49.9-200K	4.19	9.02	0.635	
	HDN60	25-50	0.10	1	10-2.49M	4.19	11.69	0.635	
	NP3S	25	0.10	1	100-200K	2.50	6.20	0.600	
	NT4S	15	0.10	1	100-499K	2.50	6.20	0.600	
	MBA 0204	15-25	0.1	0.25	22-332K	1.6	3.6	0.5	
	PMA0207*	5-10-15-25	0.05**	0.5	100-511K	2.50	6.30	0.600	
	SMA0207/MK2	5-10	0.10	0.5	510-100K	2.50	6.30	0.600	
	MPR24	5-10-15-25	0.01	0.5	4.99-1M	2.5	6.3	0.6	
	PTF65	5-15	0.05	1	15-1M	4.09	11.10	0.64	
	RCMA05	15-25	0.10	1	10-1M	3.80	10.40	0.600	
RCME05	5-10	0.10	1	100-100K	3.66	10.40	0.600		
RCMT05	15-25	0.10	1	10-1M	3.66	10.40	0.600		



PRODUCT DESCRIPTION/ POWER RATING AT70°	TYPE	T.C. ppm/°C	TOL. ± %		RES. RANGE Ω	DIMENSIONS MAX (mm)			SPECIAL CHARACTERISTICS
			MIN	MAX		BODY Ø	BODY LENGTH	LEAD Ø	
Precision Metal Film Resistors 0.4 watts	PMA0207	5-10-15-25	0.05*	0.50	100-511K	2.50	6.30	0.600	
	SMA0204/MK1	15-25	0.1	0.50	10-1M	1.60	3.60	0.500	
	MBB 0207	15-25	0.1	0.25	10-1M	2.5	6.3	0.6	
Precision Metal Film Resistors 0.5 watts	CMF-55	25-200	0.1	2	0.1-22.1M	2.49	6.61	0.69	MIL RN55
	ERC-65	25-100	0.1	1	10-3.01M	4.95	15.06	0.64	MIL RNC65/RNR65
	GSR65	15-50	0.05	1	10-10M	6.86	18.04	0.635	Commercial Hermetic
	HDN65	25-50	0.10	1	24.9-4.99M	6.86	18.04	0.635	MIL RNR65 Hermetic
	NP4S	25	0.10	1	100-1M	2.50	6.20	0.600	BS CECC / DIN / MIL / UTE
	NP5S	25	0.10	1	100-1M	3.30	8.70	0.600	BS CECC / DIN / MIL / UTE
	NT5S	15	0.10	1	100-499K	3.30	8.70	0.600	BS CECC / DIN / MIL / UTE
	RCMA08	15-25	0.10	1	1-1.5M	6.40	16.50	0.800	NF C 83230 RS68P
	RCMT08	15-25	0.10	1	1-1.5M	6.400	16.50	0.800	CECC / MIL / NF C
0.55 watts	MK4	15-25	0.10	0.25	47-1M	4.10	12.00	0.800	
0.6 watts	SMA0207/MK2	15-25	0.10	0.50	1-2.2M	2.50	6.30	0.600	
0.65 watts	MBE 0414	15-25	0.1	0.25	22-332K	4	11.9	0.8	
0.75 watts	ERC-70	25-100	0.1	1	10-3.01M	4.95	15.06	0.81	MIL RNC70/RNR70
	GSR70	15-50	0.05	1	10-10M	6.86	18.04	0.813	Commercial Hermetic
	HDN70	25-50	0.10	1	24.9-4.99M	6.86	18.04	0.813	MIL RNR70 Hermetic
	RCMA1	15-25	0.10	1	1-2M	6.40	19.3	0.800	Moulded , High Stability
Precision Metal Film Resistors 1 watt	CMF-60	25-200	0.1	2	0.1-8M	4.06	9.53	0.69	MIL RN60
	CMF-65	25-200	0.1	2	0.1-15M	4.95	15.06	0.69	MIL RN65
	CMF-70	25-150	0.1	1	1-15M	4.95	15.06	0.86	MIL Style RN70
	CPF-1	25-200	0.1	2	0.1-150K	2.49	6.61	0.69	Flameproof
	RCMA2	15-25	0.10	1	1-2.5M	10.20	29.00	0.800	Moulded, High Stability
	RCMT1	15-25	0.10	1	10-2M	6.40	19.30	0.800	
	SMA0411	15-25	0.10	0.50	10-1M	3.70	12.50	0.700	RS63P
Precision Metal Film Resistors 2 watts	CPF-2	25-200	0.1	2	0.1-150K	4.06	9.53	0.86	Flameproof
	GSR75	25-50	0.05	1	10-5M	6.86	28.56	0.813	Commercial Hermetic
	HDN75	25	0.10	1	49.9-1.21M	6.86	28.56	0.813	MIL RNR75 Hermetic
	RCMA4	15-25	0.10	1	1-5M	10.20	54.00	0.800	Very High Stability
	RCMT2	15-25	0.10	1	10-2.5M	10.20	29.00	0.800	High Stability, High Temp.
3 watts	CPF-3	25-200	0.1	2	0.1-150K	4.95	15.14	0.86	Flameproof
4 watts	RCMT4	15-25	0.10	1	1-5M	10.20	54.00	0.800	High Stability , High Temp.

Fixed Film Resistors

Vishay



FEATURES

- Temperature coefficients of 50ppm down to 300ppm
- Power ratings from 0.1 watt to 10 watts
- Metal film, metal oxide technology
- Alternative lead configurations available in many instances

PRODUCT DESCRIPTION/ POWER RATING AT 70°	TYPE	T.C. ppm/°C	TOL. ± %		RES. RANGE Ω	DIMENSIONS MAX (mm)			SPECIAL CHARACTERISTICS
			MIN.	MAX.		BODY Ø	BODY LENGTH	LEAD Ø	
0.063 watts	RCMT01	50	0.20	1	1-511K	2.03	4.00		Rated at 125°C
0.1 watt	ERC-50	25-100	0.1	1	10-796K	2.03	4.32	0.41	MIL RNC50/RNR50
0.125 watts	2H3	100	1.00	2	1-1M	1.80	4.30	0.550	ESA Approved
	CMF-50	25-150	0.1	1	10-1M	2.03	4.32	0.46	MIL RN50
	ERC-55	25-100	0.1	1	10-2M	2.54	7.14	0.64	MIL RNC55/RNR55
	ERL-05	100	1	5	4-7-1M	1.89	4.32	0.41	MIL RLR05
	GSR55	50	0.05	1	10-2.5M	3.02	7.62	0.635	Commercial Hermetic
	HDN55	50	0.10	1	1-1M	2.50	6.2	0.600	MIL RNR55 Hermetic
	NY4	50	0.10	1	10-1.21M	3.02	7.62	0.635	
	RCMA02	50	0.50	0.5	1-1M	2.50	6.70	0.600	UTE RS58P
	RCMT02	50	0.50	0.5	1-332K	2.50	6.70	0.600	Power at 125°C
	RCMX02	50	0.50	5	300K-10M	2.50	6.70	0.600	UTE RS80
	RCMS02	50	1.00		1-332	2.50	6.70	0.600	RS58Y
	RCMS02	50	1.00		1-332	2.50	6.70	0.600	RS69Y
RCMM02	100	2.00	5	1-332	2.50	6.70	0.600	RC21U	
0.25 watts	2H4	100	1.00	2	1-5.7M	2.50	7.14	0.690	ESA Approved
	CMF-07	100-150	2	5	1-5M	2.49	6.61	0.69	MIL RL07
	ERC-55-200	25-100	0.1	1	10-2M	2.62	7.62	0.64	MIL RNC60/RNR60
	ERL-07	100	1	5	1-10M	2.50	7.14	0.64	MIL RLR07
	GSR57	50	0.05	1	10-2.5M	4.19	9.02	0.635	Commercial Hermetic
	GSR60	50	0.05	1	10-3M	4.19	11.69	0.635	Commercial Hermetic
	HDN57	50	0.10	1	49.9-200K	4.19	9.02	0.635	MIL RNR57 Hermetic
	HDN60	50	0.10	1.00	10-2.49M	4.19	11.69	0.635	MIL RNR60 Hermetic
	NK3	100	1.00	5.0	10-1.5M	1.80	3.90	0.500	BS / CECC / UTE
	NK4	50-100	1.00		1-4.7M	2.50	6.20	0.600	BS / CECC
	NY3	50	0.50	1.0	10-1.5M	1.80	3.90	0.500	BS / CECC / UTE
	RCMA05	50	0.20	1.0	1-1M	3.75	10.4	0.600	UTE RS63P
	RCMT05	50	0.10	1.0	1-1M	3.66	10.4	0.600	UTE RS60E
	RCMX05	50	0.50	1.0	1M-20M	3.75	10.4	0.600	Rated at 125°C
SMA0207/MK2	5-10	0.10	0.5	510-100K	2.50	6.30	0.600	BS / CECC	
0.33 watts	CCF-50	100	1	5	10-1M	1.67	3.63	0.56	



PRODUCT DESCRIPTION/ POWER RATING AT 70°	TYPE	T.C. ppm/°C	TOL. ± %		RES. RANGE Ω	DIMENSIONS MAX (mm)			SPECIAL CHARACTERISTICS
			MIN.	MAX.		BODY Ø	BODY LENGTH	LEAD Ø	
0.4 Watt HF = High Frequency	MBA 0204	25-50	1	5	0.22-10M	1.6	3.6	0.5	High Frequency Type
	MBA 0204 HF	50	2	2	1.5-470	1.6	3.6	0.5	
	SMA0204/MK1	50-100	0.5	5.0	0.22-10M	1.60	3.60	0.500	
	SMA0204 HF/MK1 HF	50	1.0		10-1K	3.60	3.60	0.500	
	MRS16	50	1	1	4.99-1M	1.6	3.6	0.5	
	SFR25	100-250	1	5	0.22-10M	2.5	7	0.58	
0.5 Watt	2H5	100	1.0	2.0	1-4.1M	4.09	10.57	0.860	ESA Approved
	CCF-07	100-200	2	5	10-2M	2.49	6.73	0.69	MIL RN55 MIL RNC65/RNR65 MIL RLR20 Flameproof Commercial Hermetic MIL RNR65 Hermetic CECC CECC CECC CECC CECC RS68P RC32 RC31U RC71Y RS69Y RS68Y RS56C High Ohmic Values
	CCF-55	100	1	1	10-3.01M	2.49	6.73	0.686	
	CMF-55	25-200	0.1	2	0.1-22.1M	2.49	6.61	0.69	
	ERC-65	25-100	0.1	1	10-3.01M	4.95	15.06	0.64	
	ERL-20	100	1	5	4.3-3.01K	4.09	10.57	0.81	
	FP1 / 2	150	1	10	10-1M	3.82	9.65	0.81	
	GSR65	50	0.05	1.0	10-10M	6.86	18.04	0.635	
	HDN65	50	0.1	1.0	24.9-4.99M	6.86	18.04	0.635	
	N4	200	2.0	5.0	1-4.7M	2.50	6.20	0.600	
	N5	200	2.0	5.0	2.4-4.7M	3.30	8.70	0.600	
	NK4	100	2.0	5.0	1-4.7M	2.50	6.20	0.600	
	NK5	50	1.0		10-1M	2.50	7.00	0.800	
	NK5	100	2.0	5.0	2.7-4.7M	3.30	8.70	0.600	
	NY4	50	0.5	1.0	1-4.7M	2.50	6.20	0.600	
	NY5	50	0.5	1.0	3.01-4.7M	3.30	8.70	0.600	
	RCMA08	50	0.2	1.0	1-1.5M	6.40	16.5	0.800	
	RCMM02	100	2.0	5.0	1-332K	2.50	6.70	0.600	
	RCMM05	100	2.0	5.0	1-1M	3.75	10.40	0.600	
	RCMS02	50	1.0		1-332K	2.50	6.70	0.600	
	RCMS05	50	1.0		1-1M	3.75	10.40	0.600	
	RCMS1	50	1.0		1-2.21M	6.40	16.50	0.800	
	RCMT08	50	0.2	1.0	1-1.5M	6.40	16.50	0.800	
	RCMX1	50	0.5	5.0	2M-50M	6.40	16.50		
SFR16S	250	1	5	4.99-3M	1.9	3.4	0.45		
SFR25H	100-250	1	5	0.22-10M	2.5	7	0.58		
0.6 watts HF = High Frequency	MBB 0207	25-50	0.5	5	0.22-10M	2.5	6.3	0.6	Alternative lead styles i.e. SMR, etc available
	MRS25	50	1	1	1-10M	2.5	6.3	0.6	
	SMA0207-MK2	50-100	0.5	5.0	0.16-10M	2.50	6.30	0.600	
	SMA0207HF	50	1.0		10-1K	2.50	6.30	0.600	
0.7 watts	SMA0309	50-100	1.0	5.0	10-1M	3.00	8.20	0.700	Alternative lead styles i.e. SMS, SXS etc available
	SXA0411	300	2.0	5.0	0.16-9.53	3.80	11.00	0.700	
0.75 watts	CCF-60	100	1	1	10-1M	3.76	9.53	0.69	MIL RNC70/RNR70 Commercial Hermetic MIL RNR70 Hermetic Tight tolerances available
	ERC-70	25-100	0.1	1	10-3.01M	4.95	15.06	0.81	
	GSR70	50	0.05	1.0	10-10M	6.86	18.04	0.813	
	HDN70	50	0.1	1.0	24.9-4.99M	6.86	18.04	0.813	
	RCMA1	50	0.2	1.0	1-2M	6.40	19.30	0.800	
0.8 watts	HMA0207	50	1.0		4.7-511K	2.50	6.30	0.600	Power Type

Fixed Film Resistors

Vishay



PRODUCT DESCRIPTION/ POWER RATING AT 70°	TYPE	T.C. ppm/°C	TOL. ± %		RES. RANGE Ω	DIMENSIONS MAX (mm)			SPECIAL CHARACTERISTICS
			MIN.	MAX.		BODY Ø	BODY LENGTH	LEAD Ø	
1 watt	CMF-20	100-150	2	5	1-8M	4.06	10.55	0.86	MIL RL20
	CMF-60	25-200	0.1	2	0.1-8M	4.06	9.53	0.69	MIL RN60
	CMF-65	25-200	0.1	2	0.1-15M	4.95	15.06	0.69	MIL RN65
	CMF-70	25-150	0.1	1	1-15M	4.95	15.06	0.86	MIL RN70
	CPF-1	25-200	0.1	5	0.1-150K	2.49	6.61	0.69	Flameproof
	ERL-32	100	1	5	1-2.7M	5.21	15.06	0.81	MIL RLR32
	FP1	150	1	10	10-1M	5.01	15.01	0.81	Flameproof
	FP32	150	1	10	10-1M	5.01	15.01	1.02	Flameproof
	MBE 0414	25-50	0.5	5	0.22-22M	4	11.9	0.8	
	MK4	50-100	1.0	5.0	0.22-10M	4.10	12.00	0.800	
	PR01	250	1	5	0.22-1M	2.5	8.5	0.58	
	RCMM1	50-100-200	2.0	5.0	1-2.26M	6.40	16.50	0.800	RC41U
	SMA0411	50-100	1.0	5.0	1-10M	3.70	10.50	0.700	Radial leads available
	SMA0411HF	50	1.0		10-1K	3.70	10.50	0.700	High Frequency
	SXA0411	300	2.0	5.0	10-100K	3.80	11.00	0.700	Radial style leads available
	RCMT1	50	0.1	1.0	1-2M	6.40	19.30	0.800	RS70C / E
RCMA2	50	0.2	1.0	1-2.5M	10.20	29.00		Precision	
WK2	50-100-200	1.0	5.0	0.18-10M	2.50	6.30	0.600		
1.2 watts	MK5	50-100	0.5	5.0	0.22-5.1M	6.00	16.50	0.800	
1.5 watts	SXA0617	300	2.0	5.0	0.16-9.53	5.20	15.80	0.800	Radial Style available
	MK8	50-100	0.5	5.0	0.22-2.4M	9.00	20.00	0.800	
1.6 watts	ZMA0411	100	2.0	5.0	0.16-1M	3.80	11.00	0.700	Power Type
2 watts	CCF-2	100	1	5	4.99-1M	4.06	9.53	0.86	Flameproof
	CPF-2	25-200	0.1	5	0.1-150K	4.06	9.53	0.86	Flameproof
	FP2	150	1	10	9-1.5M	8.13	18.24	0.801	Flameproof
	FP42	150	1	10	10-1.5M	8.13	18.24	1.14	Flameproof
	FP69	150	1	10	2.6-1.5M	6.03	13.64	0.81	Flameproof
	GSR75	50	0.05	1.0	10-5M	6.86	28.56	0.813	Commercial Hermetic
	HDN75	50	0.1	1.0	49.9-1.21M	6.86	28.56	0.813	MIL RNR75 Hermetic
	PR02	250	1	5	0.33-1M	3.90	12	0.78	
	RCMA4	50	0.2	1.0	1-5M	10.20	54.00	0.800	
	RCMT2	50	0.2	1.0	1-2.5M	10.20	29.00	0.800	Rated at 125°C
	ROP2			5.0	1-56K	4.90	14.70	0.900	
SXA0617	300	2.0	5.0	10-100K	5.20	15.80	0.800		
3 watts	CPF-3	25-200	0.1	5	0.1-150K	4.95	15.14	0.86	Flameproof
	FP3	150	1	10	9-1M	8.13	23.65	0.801	Flameproof
	PR03	250	1	5	0.68-1M	5.2	19.5	0.78	
4 watts	FP4	150	1	1.0	6-1M	8.13	39.75	0.801	Flameproof
	RCMT4	50	0.2	1.0	1-5M	10.2	54.00	0.800	
	ROP4			5.0	4.7-100K	6.90	25.20	0.900	
	SXA0922	300	2.0	5.0	5.1-68K	8.40	22.20	0.800	Radial leads available
	WK8	200	2.0	5.0	0.22-100K	9.00	20.00	0.800	
5 watts	FP67*	150	1	10	5-19K	8.13	23.65	0.81	Flameproof
	FP5	150	1	10	7-1M	8.13	44.32	0.81	Flameproof
*Power Rating at 25°C									
6 watts	SXA0933	300	2.0	5.0	6.2-68K	8.40	32.20	0.800	Flameproof
7 watts	FP7	150	1	10	8-1M	8.13	44.32	0.81	Flameproof
10 watts	FP10	150	1	10	8-1M	8.13	52.71	0.81	Flameproof
*Power Rating at 40°C									



PRODUCT DESCRIPTION	TYPE	WATTS AT 70°C		TOL. ± %		RES. RANGE Ω	DIMENSIONS MAX (mm)			SPECIAL CHARACTERISTICS
		MIN.	MAX.	MIN.	MAX.		BODY Ø	BODY LENGTH	LEAD Ø	
Power Metal Oxide Film Resistors	ROP2	1.5		5.0		1-56K	4.90	14.70	0.9	NFC 83210-CECC 40101
	ROP4	3.0		5.0		4.7-100K	6.90	25.20	0.9	
Metal Oxide Film Power Resistors	WR4	2.0	2.0	10.0		0.10-10M	4.10	12.00	0.8	High stability and excellent high frequency characteristics
	WR5	3.0	2.0	10.0		0.22-470K	6.00	16.50	0.8	
Metal Alloy Resistors High Voltage	HVW-1/2	1	5	20		1K-25M	3.94	14.86	0.81	HVW/MVW are uncoated HVX is silicone coated Axial Leads: HVW/HVX -tinned copper MVW- copper clad steel
	MVW-1/2	1	5	20		1K-25M	3.94	14.86	0.81	
	HVW-3/4	1.5	5	20		1K-50M	3.94	22.98	0.81	
	MVW-3/4	1.5	5	20		1K-50M	3.94	22.98	0.81	
	HVW-1	2.5	5	20		1K-75M	6.99	23.87	0.81	
	HVW-2	5	5	20		1K-200M	6.99	53.14	0.81	
	HVX-1/2	1	5	20		1K-25M	4.57	16.54	0.81	
	HVX-3/4	1.5	5	20		1K-50M	4.57	25.10	0.81	
	HVX-1	2.5	5	20		1K-75M	7.87	25.10	0.81	
Metal Glaze High Voltage Resistors	VR25	0.25	1	10		100K-22M	2.5	7.5	0.58	
	VR37	0.50	1	5		100K-33M	4	10	0.7	
	VR68	1.00	1	5		100K-68M	6.8	19	0.78	
High Ohmic Value High Power Resistors <small>Axial Lead Thick Film Technology Moulded or coated Values up to 1.5GΩ Power Rating at 25°C</small>	HPS 58	1.0	0.5	10.0		200-100M	2.50	6.70	0.65	Coating: Moulded Silicone for sizes 58,63,68 Multilayers of Silicone Varnish for larger sizes
	HPS 63	2.0	0.5	10.0		200-175M	3.80	10.20	0.65	
	HPS 68	3.0	0.5	10.0		300-400M	5.90	15.20	0.85	
	HPS 523	4.0	0.5	10.0		800-650M	5.30	25.00	0.85	
	HPS 923	6.0	0.5	10.0		1K-1G	9.50	25.00	0.85	
	HPS 932	8.0	0.5	10.0		1K-1G	9.50	34.00	0.85	
	HPS 947	10.0	0.5	10.0		2K-1.5G	9.50	49.00	0.85	
High Power Thin Film Resistors with Heat Sink <small>Non Inductive, Small size, thin type for high density applications</small>	RPF-10	10.0	1.0	5.0			5.50	20.50		
	RPF-20	20.0	1.0	5.0			7.00	44.50		
	RPF-50	50.0	1.0	5.0			5.50	44.50		
	RPF-100	100.0	10	10.0			5.50	50.50		
	RPF-250	250.0	10	10.0			10.50	100.50		
Power Thick Film Resistors for Heat Sink Mounting <small>Power Rating at 25°C, TO220 Package, *Body Width; **Body Length excluding terminals</small>	RTO 20F	20.0	1.0	10.0		0.046-1M	10.10*	15.00**	0.8	Suffix F = Radial Leads Suffix C = Flat leads for SMD applications
	RTO 20C	20.0	1.0	10.0		0.046-1M	10.10*	15.00**	0.8	
	RTO 50F	50.0	1.0	10.0		0.046-1M	10.10*	15.00**	0.8	
	RTO 50C	50.0	1.0	10.0		0.046-1M	10.10*	15.00**	0.8	
Power Thick Film Resistors <small>for Heat Sink mounting RCH50 Available as special design please contact us Power Rating at 25°C *Body Width;</small>	RCH 5	5.0	1.0	10.0		0.24-1M	9.00*	16.60	15.4**	Same mounting as RH Wirewound resistors
	RCH 10	10.0	1.0	10.0		0.24-1M	11.00*	19.00	15.6**	
	RCH 25	25.0	1.0	10.0		0.24-1M	14.00*	28.00	15.5**	
	RCH 50	50.0	1.0	10.0		0.24-1M	15.50*	47.80	15.4**	
Power Thick Film Resistors <small>for Heat Sink mounting Power Rating at 25°C SOT227B Package *Body Width; **Body Height</small>	RTOP 100	100	1.0	10.0		0.046-1M	25.00*	38.00**	12.5	1 to 4 different resistors in the package:- RTOP = 1 resistor DRTOP = 2 resistors TRTOP = 3 resistors QRTOP = 4 resistors Power given for each resistor
	RTOP 200	200	1.0	10.0		0.046-1M	25.00*	38.00**	12.5	
	DRTOP 50	50	1.0	10.0		0.046-1M	25.00*	38.00**	12.5	
	DRTOP 100	100	1.0	10.0		0.046-1M	25.00*	38.00**	12.5	
	TRTOP 30	30	1.0	10.0		0.046-1M	25.00*	38.00**	12.5	
	TRTOP 40	40	1.0	10.0		0.046-1M	25.00*	38.00**	12.5	
	QRTOP 20	20	1.0	10.0		0.046-1M	25.00*	38.00**	12.5	
	QRTOP 35	35	1.0	10.0		0.046-1M	25.00*	38.00**	12.5	
Power Thick Film Resistors <small>for heat sink mounting Power Rating at 25°C *body width; **body height</small>	RPH100	100	1.0	5.0		0.92-1M	46.70	65.50	21.6**	Same mounting as RH wirewound resistors
	RPH 200	200	1.0	5.0		0.92-1M	46.00*	65.50	21.6**	

Fixed Film Resistors

Vishay



PRODUCT DESCRIPTION	TYPE	WATTS AT 70°C	TOL. ± %		RES. RANGE Ω	DIMENSIONS MAX (mm)			SPECIAL CHARACTERISTICS
			MIN.	MAX.		BODY Ø	BODY LENGTH	LEAD Ø	
Power Thick Film Resistors for heat sink mounting *body width; **body height	RPS 250	250	1.0	10	0.24-1M	57*	73.00	26.1**	Recommended for severe pulse conditions
	RPS 500	500	1.0	10	0.24-1M	57*	73.00	26.1**	
	RPS 1000	1000	1.0	10	0.24-1M	57*	73.00	26.1**	
Moulded High Voltage / Value Res.	RCMY2	0.5	1.0	5	1M-100M	10.200	29.00	0.80	High Ohmic Values Excellent Insulation
	RCMY4	1.0	1.0	5	1M-250M	10.200	54.00	0.80	
High Power Thin Film Resistors Non-Inductive, low profile with flat pluggable leads	RNP-20S	20.0	1.0	5	1-51K	5.0	10.60	0.50	High Ohmic Values
	RNP-50S	50.0	1.0	5	1-51K	20.2	15.90	1.00	
High Value / Voltage Cermet Resistors Flat resistors, screen printed cermet compound on alumina substrate Non-Inductive, High electrical values	RHV1	0.6	1.0	5	1M-100M	3.00*	27.00		High Ohmic Values Non-Inductive *Flat resistors
	RHV2	1.6	1.0	5	1M-200M	3.00*	52.50		
	RHV4	4.0	1.0	5	1M-50M	3.00*	52.50		
Metal Oxide, High Voltage Resistors Standard Product is Silicone coated, axial leads, tubular body Style N: non inductive Style P: 1.02mm leadØ Style S: solid body Style T: threaded terminals, Style Y: one end axial lead one end threaded terminal	ROX-1/2	1.40	1	10	1K-1G	7.87	17.78	0.81	For Oil Bath or Open Air Operation Optional Construction Matched Sets available
	ROX-3/4	2.16	1	10	100-3G	7.87	22.86	0.81	
	ROX-1	2.88	1	10	100-3G	7.87	25.91	0.81	
	ROX-1-1/2	3.60	1	10	100-3G	7.87	41.91	0.81	
	ROX-2	4.32	1	10	100-3G	7.87	54.61	0.81	
	ROX-3	7.20	1	10	400-3G	7.87	80.01	0.81	
	ROX-4	8.64	1	10	500-3G	7.87	105.41	0.81	
	ROX-5	11.52	1	10	500-3G	7.87	130.81	0.81	
ROX-6	14.40	1	10	500-3G	7.87	156.21	0.81		
High Ohmic Value and High Voltage Resistors 50-100ppm Ohmic Values up to 100G Voltage up to 50kV	HTS 58	0.25	0.5	10	1K-200M	2.00	7.20	0.65	High Stability and Voltage Strength Suitable for High Voltage Circuitry
	HTS 63	0.5	0.5	10	1K-500M	2.70	9.00	0.65	
	HTS 68	1.0	0.5	10	1K-2.5G	4.30	15.00	0.85	
	HTS 523	1.0	0.5	10	1K-5G	5.30	25.00	0.85	
	HTS 547	1.5	0.5	10	1K-50G	5.30	49.00	0.85	
	HTS 729	2.0	0.5	10	1K-15G	7.50	31.00	0.85	
	HTS 932	2.5	0.5	10	1K-30G	9.50	34.00	0.85	
	HTS 947	3.0	0.5	10	1K-50G	9.50	49.00	0.85	
	HTS 972	4.0	0.5	10	1K-100G	9.50	74.00	0.85	
HTS 9100	5.0	0.5	10	1K-100G	9.50	102.00	0.85		
Ultra-High Ohmic Value High Power Tubular Resistors With Tab or Ferrule terminals ± 100 & ± 200ppm TC's available measured between + 25°C and + 125°C Power Rating at 125°C	RJU-40	40	1	10	1K-1G	19.05	114.30		2 Terminal Styles: Style 3 - Tab Terminal Style 4 - Ferrule Terminal Standard length is Tab terminal * denotes length of ferrule terminal style
	RJU-50	50	1	10	1K-1G	19.05	152.40		
	RJU-70	70	1	10	1K-1G	19.05	203.20		
	RJU-95	95	1	10	1K-1G	28.70	165.10		
	RJU-95-1	95	1	10	1K-1G	28.70	165.10	195.33*	
	RJU-140	140	1	10	1K-1G	28.70	266.70		
	RJU-140-1	140	1	10	1K-1G	28.70	266.70	296.93*	
	RJU-150	150	1	10	100K-1G	50.80	165.10		
	RJU-150-1	150	1	10	100K-1G	50.80	165.10	195.33*	
	RJU-275	275	1	10	100K-1G	38.10	368.30		
	RJU-275-1	275	1	10	100K-1G	38.10	368.30	398.53*	
	RJU-400	400	1	10	100K-1G	50.80	469.90		
RJU-400-1	400	1	10	100K-1G	50.80	469.90	500.13*		
Metal Oxide Resistors High Voltage, Special Purpose For Oil Bath or Open-Air Operation Special pre-conditioning to customer requirements, and Matched sets available	RNX-1/4	0.36	0.5	5	100-100M	3.94	7.88	0.69	Non-inductive version available
	RNX-3/8	0.72	0.5	5	100-1G	3.94	11.18	0.69	
	RNX-1/2	0.86	0.5	5	100-2G	3.94	14.23	0.69	
	RNX-3/4	1.44	0.5	5	100-2G	3.94	20.58	0.69	
	RNX-1	1.80	0.5	5	100-2G	3.94	26.93	0.69	
	RNX-1-1/4	2.16	0.5	5	100-2G	3.94	33.28	0.69	
	RNX-1-1/2	2.88	0.5	5	100-2G	3.94	39.63	0.69	
	RNX-2	3.60	0.5	5	100-2G	3.94	52.33	0.69	



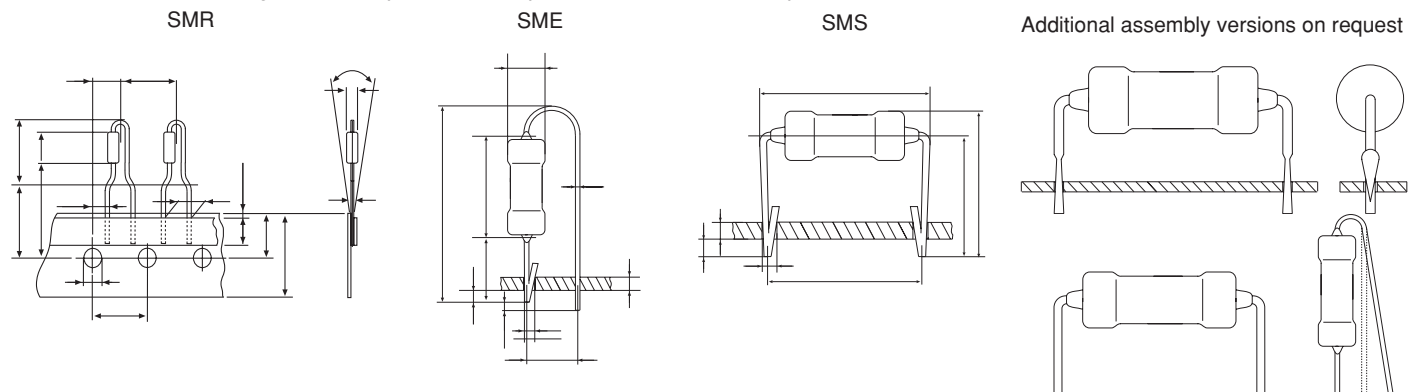
PRODUCT DESCRIPTION/ POWER RATING	TYPE	WATTS AT 70°C	TOL. ± %		RES. RANGE Ω	DIMENSIONS MAX (mm)			SPECIAL CHARACTERISTICS
			MIN.	MAX.		BODY Ø	BODY LENGTH	LEAD Ø	
Carbon Film Resistor High Pulse Load	CBB 0207	0.60	2.0	2.0	10-1.5M	2.50	6.30	0.600	Cut off values
Metal Glaze Resistor High Pulse Load	LSR37	0.50	10.0	20.0	220-10K	4.00	10.0	0.700	
Metal Film Pulse Withstanding Protective Resistors <small>Axial Leads Provides Lightning Surge absorption capabilities</small>	FP1/2P	0.5	1	5	10-1M	3.82	9.65	0.86	2K00
	FP1P	1	1	5	10-1M	5.01	15.01	0.86	1K00
	FP2P	2	1	5	10-1.5M	8.13	18.24	0.86	300R
	FP3P	3	1	5	10-1M	8.13	24.26	0.86	250R
	FP69P	2	1	5	10-1M	6.03	13.64	0.86	400R
High Positive T.C. Resistors	NMA0207/NK2	0.4	5.0	10.0	0.1-47	2.50	6.30	0.600	High positive T.C. of + 4500 ± 500ppm
	NMA0411	0.50	5.0	10.0	0.1-47	3.70	10.50	0.700	
Fusible Metal Film Resistors for Constant Current	NMA0207Si	0.35	5.0	20.0	0.1-47	2.30	6.10	0.600	Flameproof
	NMA0309Si	0.45	5.0	20.0	0.1-47	2.90	8.10	0.700	
	NMA0411Si	0.50	5.0	20.0	0.1-47	3.50	10.50	0.700	
Fusible Metal Film Resistors for Constant Current	NKS2	0.40	5.0	20.0	0.1-20	2.50	6.00	0.600	High positive temperature coefficient from + 3000ppm to + 5000ppm
	NKS3	0.50	5.0	20.0	0.1-20	3.20	8.50	0.600	
	NKS4	0.70	5.0	20.0	0.1-20	4.10	12.00	0.800	
	NKS5	1.00	5.0	20.0	0.1-20	6.00	16.50	0.800	
	NKS8	1.50	5.0	20.0	0.1-20	6.00	20.00	0.800	
Fusible Metal Film Resistors	CMF-55-39	0.25	1	1	4-10K	2.50	6.61	0.69	
	CMF-60-64	0.5	1	1	4-23K	3.93	10.29	0.86	
	NFR25	0.33	5		0.22-15K	2.5	7.5	0.58	
	NFR25H	0.5	5		0.22-15K	2.5	7.5	0.58	
High Voltage Resistors <small>Plug in Radial Style Leads *TC = 200ppm, 50/100ppm available with restricted resistance ranges ** height</small>	FHV-025	0.25	1.0	10.0	10K-100M	7.62**	7.62	0.457	High ohmic values Non-Inductive design Matched sets and ratio dividers available
	FHV-050	0.50	1.0	10.0	10K-500M	9.65**	9.65	0.508	
	FHV-075	0.25	1.0	10.0	100-1G	5.33**	14.48	0.635	
	FHV-100	1.00	1.0	10.0	100-2G	7.11**	21.18	0.813	
	FHV-150	1.50	1.0	10.0	10K-2G	8.38**	39.88	0.813	
	FHV-160	1.00	1.0	10.0	100-2G	13.97**	13.97	0.813	
	FHV-200	2.00	1.0	10.0	200-8G	8.38**	51.82	0.813	
	FHV-400	2.00	1.0	10.0	20K-2G	13.97**	26.67	0.813	
	FHV-500	4.00	1.0	10.0	30K-10G	13.97**	52.58	0.813	
Power Resistors Metal Glaze <small>on Ceramic Substrate High Voltage Strength Power Rating at 40°C *Plug-in" Style Radial Leads</small>	HGR0908	0.40	0.25	10.0	100K-100M	8x2.50	8.00	0.500	High ohmic values Radial 'plug-in' leads
	HGR0714	0.50	0.25	10.0	500K-2G	7x2.50	14.00	0.600	
	HGR0924	1.00	0.25	10.0	500K-2.5G	9x2.50	24.00	0.600	
	HGR0939	1.75	0.25	10.0	1M-7G	9x2.50	39.00	0.600	
	HGR1354	3.00	0.25	10.0	1M-10G	13x2.50	54.00	0.600	
	HGR1676	5.00	0.25	10.0	1M-30G	16x2.50	76.00	0.600	

RESISTORS WITH ALTERNATIVE LEAD CONFIGURATIONS

Additional lead configurations 'R', 'V', 'S', 'E', 'L' 'V' - loose or taped for automatic insertion.

SM - Metal Film Resistors; SX - Metal Oxide Resistors; LC - Carbon Film Resistors

See SMA/SXA/LCA ranges for size/performance parameters, some examples shown below



Fixed Film Resistors

Vishay



PRODUCT DESCRIPTION/ POWER RATING	TYPE	T.C. ppm/°C	TOLERANCE ± %		RES. RANGE Ω	DIMENSIONS MAX (mm)			SPECIAL CHARACTERISTICS
			MIN.	MAX.		BODY Ø	BODY LENGTH	LEAD Ø	
Carbon Film High Voltage Resistors Power Rating at 25°C Leads are #20 AWG tinned copper Supplied with Mylar® heat shrink protective sleeve 0.51mm thick	BAEW	0.5	5	15	10K-1G	6.35	19.05	Radial Lug (Style 1) or Axial Lead (Style 2) available	
	BAKW	1	5	15	20K-1G	6.35	38.10		
	BBF	1	5	15	10K-1G	7.95	25.40		
	BBFW	1	5	15	10K-1G	7.95	25.40		
	BBM	2	5	15	10K-1G	7.95	44.45		
	BBMW	2	5	15	10K-1G	7.95	44.45		
	BBR	3	5	15	20K-1G	7.95	76.20		
	BBRW	3	5	15	20K-1G	7.95	76.20		
	BBV	5	5	15	40K-1G	7.95	139.70		
	BFQ	4	5	15	20K-1G	14.30	63.50		
	BFT	6	5	15	40K-1G	14.30	101.60		
	BFW	10	5	15	70K-1G	14.30	165.10		
Carbon Film High Megohm Resistors Varnish Coated Leads are #20 AWG tinned copper Supplied with Mylar® heat shrink protective sleeve 0.51mm thick Power Rating at 25°C	HAEW	0.5	5	15	100M-10G	6.35	19.05	Radial Lug (Style 1) or Axial Lead (Style 2) available	
	HAKW	1	5	15	100M-10G	6.35	38.10		
	HBF	1	5	15	100M-10G	7.95	25.40		
	HBFW	1	5	15	100M-10G	7.95	25.40		
	HBM	2	5	15	100M-10G	7.95	44.45		
	HBMW	2	5	15	100M-10G	7.95	44.45		
	HBR	3	5	15	100M-10G	7.95	76.20		
	HBRW	3	5	15	100M-10G	7.95	76.20		
	HBV	5	5	15	100M-10G	7.95	139.70		
	HFQ	4	5	15	100M-10G	14.30	63.50		
	HFT	6	5	15	100M-10G	14.30	101.60		
	HFV	10	5	15	100M-10G	14.30	165.10		
Carbon Film High Voltage Resistors - to 125KV Power Rating at 25°C Special Purpose Standard Models Varnish Coated, vinyl or Mylar® protective sleeve available	DJU	10	5	15	100K-10G	19.05	114.30	Radial Bands (Style 3) Ferrule Terminals (Style 4) available	
	DPW	20	5	15	100K-10G	28.70	165.10		
	DPW-1	20	5	15	100K-10G	28.70	195.33		
	DPX	30	5	15	100K-10G	28.70	266.70		
	DPX-1	30	5	15	100K-10G	28.70	296.93		
	DVY	60	5	15	100K-10G	38.10	368.30		
	DVY-1	60	5	15	100K-10G	38.10	398.53		
	DZW	35	5	15	100K-10G	50.80	165.10		
	DZW-1	35	5	15	100K-10G	50.80	195.33		
	DZZ	100	5	15	100K-10G	50.80	469.90		
Carbon Film High Frequency Resistors Power Rating at 25°C Special Purpose Non-Inductive Standard Models Varnish Coated, vinyl or Mylar® protective sleeve available	GJU	10	5	15	100-1M	19.05	114.30	Radial Lug (Style 3) Axial Leads (Style 4) available	
	GPW	20	5	15	100-1M	28.70	165.10		
	GPW-1	20	5	15	100-1M	28.70	195.33		
	GPX	30	5	15	100-1M	28.70	266.70		
	GPX-1	30	5	15	100-1M	28.70	296.93		
	GVY	60	5	15	100-5M	38.10	368.30		
	GVY-1	60	5	15	100-5M	38.10	398.53		
	GZW	35	5	15	100-1M	50.80	165.10		
	GZW-1	35	5	15	100-1M	50.80	195.33		
	GZZ	100	5	15	100-10M	50.80	469.90		
Carbon Film Resistors High Voltage, Special Purpose Axial Lead to 15KV Mylar® protective sleeve supplied	TAEW	0.5	5	20	1M-1G	7.50	21.60	0.80	Cap and Lead Type
	TAFW	1	5	20	1M-1G	7.50	28.00	0.80	
	TAKW	1.5	5	20	1M-1G	7.50	40.70	0.80	
	TAOW	2	5	20	1M-1G	7.50	53.40	0.80	
	TAQW	2.5	5	20	1M-1G	7.50	66.10	0.80	
	TARW	3	5	20	1M-1G	7.50	78.80	0.80	



PRODUCT DESCRIPTION/ POWER RATING	TYPE	WATTS AT 70°C	TOLERANCE ± %		RES. RANGE Ω	DIMENSIONS MAX (mm)			SPECIAL CHARACTERISTICS
			MIN.	MAX.		BODY Ø	BODY LENGTH	LEAD Ø	
Fusible Carbon Film Resistors	LCA0207Si	0.25	5.0		0.22-1K	2.3	6.1	0.6	
	LCA0309Si	0.30	5.0		0.22-1K	2.9	8.1	0.7	
	LCA0411Si	0.35	5.0		0.22-1K	3.5	10.5	0.7	
	LCA0617Si	0.50	5.0		1-1K	4.8	15.3	0.8	
Fusible Carbon Film Resistors for Constant Voltage	SKS2	0.30	5.0	20.0	1-5.1K	2.5	6.0	0.6	
	SKS3	0.35	5.0	20.0	1-5.1K	3.2	8.5	0.6	
	SKS4	0.50	5.0	20.0	1-5.1K	4.0	12.0	0.8	
	SKS5	1.00	5.0	20.0	1-5.1K	6.0	16.5	0.8	
	SKS8	1.30	5.0	20.0	1-5.1K	9.0	20	0.8	
Carbon Film Resistors <i>Axial Leads</i> Alternative lead configurations available	LCA0204/SK1	0.25	2.0	5.0	1-1M	1.6	3.6	0.5	Good Long Term Stability and Moisture Resistance for General Purpose Commercial Electronics and Pulse Load Applications
	CFA0207	0.34	5.0		1-10M	2.4	6.1	0.6	
	LCA0207/SK2	0.35	2.0	5.0	0.22-5.1M	2.4	6.1	0.6	
	LCA0309	0.45	2.0	5.0	0.22-4.7M	3.0	8.1	0.7	
	LCA0411/SC4	0.50	2.0	5.0	0.22-10M	3.7	10.5	0.7	
	LCA0414	0.60	2.0	5.0	0.22-10M	4.2	12.2	0.8	
	SK4	0.60	5.0	20.0	10M-150M	4.1	12.0	0.8	
	LCA0617	0.70	2.0	5.0	2.2-22M	5.0	15.3	0.8	
	LCA0719	1.00	2.0	5.0	2.2-20M	6.5	18.5	0.8	
	SK5	1.10	2.0	5.0	1-24M	6.0	16.5	0.8	
Carbon Film Resistors <i>Axial Leads, Special Purpose</i>	LCA....NE	Flameproof Model.....			Flameproof Coating				
	LCA....OF	Oil-Proof Model			Non-coated for use in Acid-Free Oil				
Carbon Film Power Resistors	HCA0207	0.80	1.0	5.0	4.7-2.2M	2.5	6.3	0.6	
Zero Ohm Bridging Links	OMA0204	3A			0	1.8	3.6	0.5	Marking: Single Black Band in Middle of Resistor
	OMA0207	5A			0	2.5	6.3	0.6	
	SL3	0.125			0	1.8	3.9	0.5	
	SL4	0.25			0	2.5	6.2	0.6	
	FRJ-50	25A			0	1.82	4.06	0.56	
High Voltage Ratio Dividers <i>Power Rating at 125°C</i> with Leads and/or Mounting Lungs in any required combination TC Matching available	RDX-2	4	1	10	2K-2G	8.26	66.55		Max Ratio = 5000:1 Max Ratio = 10000:1 Max Ratio = 10000:1 Max Ratio = 10000:1 Max Ratio = 10000:1 Max Ratio = 10000:1
	RDX-3	5	1	10	3K-10G	8.26	90.70		
	RDX-4	7	1	10	4K-10G	8.26	116.10		
	RDX-5	8	1	10	5K-10G	8.26	141.50		
	RDX-6	10	1	10	6K-10G	8.26	166.90		
	RDX-7	12	1	10	7K-10G	8.26	192.30		
High Voltage Resistors - Series TR Dividers - Series TD <i>Power rating at 25°C</i>	TR03 / TD03	0.25	1.0	20.0	300-50G	5.33	7.62	0.635	Designs built from Customer Schematics Dividers available Leaded or Non-Leaded Typical Resistance Ratios of 1000:1 , 2000:1 etc.
	TR05 / TD05	0.50	1.0	20.0	500-200G	7.62	12.7	0.635	
	TR10 / TD10	1.00	1.0	20.0	1K-2T	8.89	25.4	0.813	
	TR15 / TD15	1.50	1.0	20.0	1.5K-3T	8.89	38.1	0.813	
	TR20 / TD20	2.00	1.0	20.0	2K-4T	8.89	50.8	0.813	
	TR30 / TD30	3.00	1.0	20.0	3K-6T	10.16	76.2	0.813	