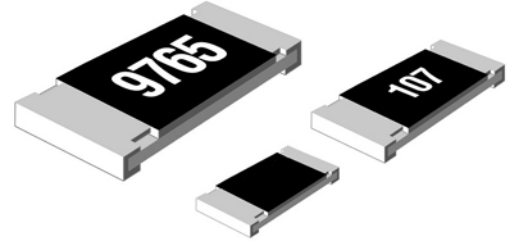
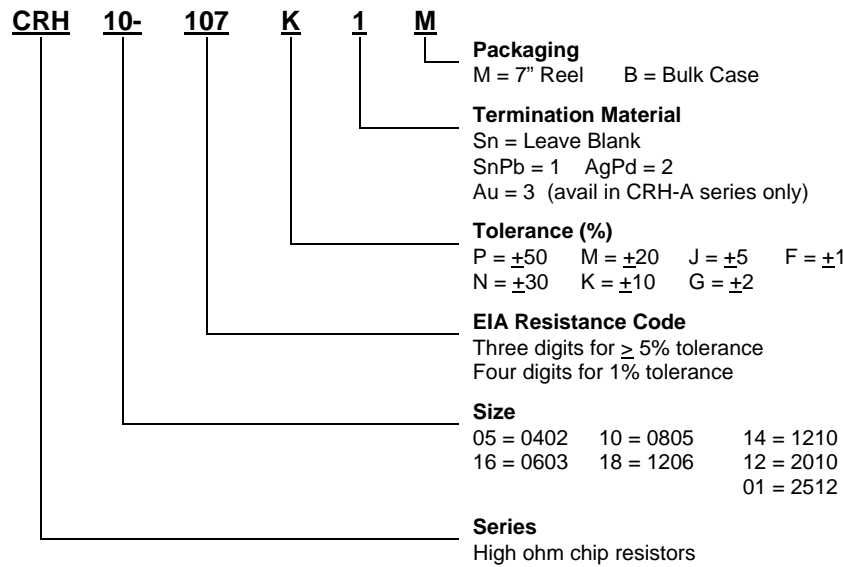


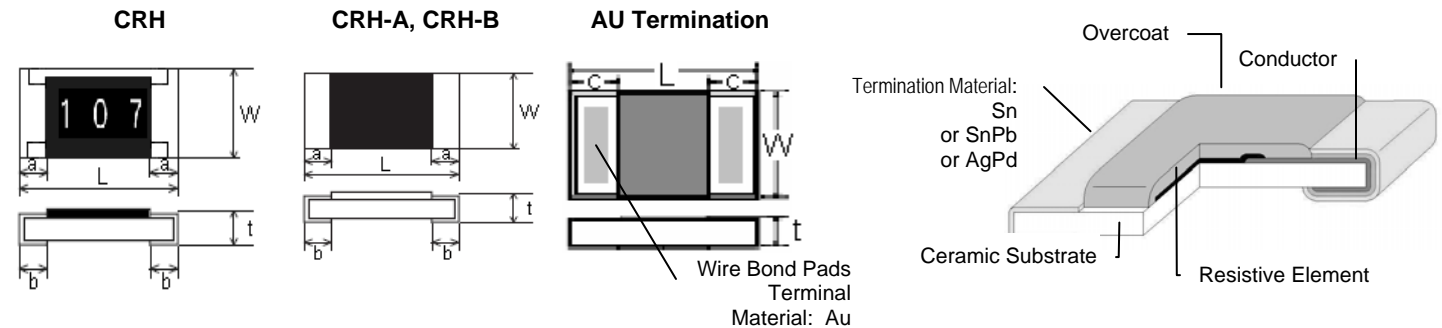
HOW TO ORDER



FEATURES

- Stringent specs in terms of reliability, stability, and quality.
- Available in sizes as small as 0502
- Resistance Range up to 150 Gig ohms
- E-24 and E-96 Series
- Low Voltage Coefficient of Resistance
- Wrap Around Terminal for Solder Flow
- RoHS/Lead Free in Sn, AgPd, and Au Termination Materials

SCHEMATIC



DIMENSIONS (mm)

Series	Size	L	W	t	a	b	Package Qty
CRH05	0402	1.0 \pm 0.05	0.50 \pm 0.05	0.35 \pm 0.05	0.20 \pm 0.1	0.25 ^{+0.05} / _{-0.10}	10,000
CRH05B	0402	1.0 \pm 0.05	0.50 \pm 0.05	0.30 \pm 0.05	0.20 \pm 0.1	0.25 ^{+0.05} / _{-0.10}	10,000
CRH16	0603	1.60 \pm 0.15	0.80 \pm 0.15	0.45 \pm 0.10	0.30 \pm 0.20	0.30 \pm 0.20	5,000
CRH16A		1.60 \pm 0.10	0.80 \pm 0.10	0.45 \pm 0.10	0.20 \pm 0.10	0.20 \pm 0.10	
CRH16B		1.60 \pm 0.10	0.80 \pm 0.10	0.45 \pm 0.10	0.30 \pm 0.20	0.30 \pm 0.20	
CRH10	0805	2.10 \pm 0.15	1.25 \pm 0.15	0.55 \pm 0.10	0.40 \pm 0.20	0.40 MAX	5,000
CRH10A		2.00 \pm 0.20	1.25 \pm 0.20	0.50 \pm 0.10	0.40 \pm 0.20	0.40 \pm 0.20	
CRH10B		2.00 \pm 0.20	1.25 \pm 0.10	0.50 \pm 0.10	0.40 \pm 0.20	0.40 \pm 0.20	
CRH18	1206	3.10 \pm 0.15	1.55 \pm 0.15	0.55 \pm 0.10	0.50 \pm 0.20	0.50 MAX	5,000
CRH18A		3.20 \pm 0.20	1.60 \pm 0.20	0.55 \pm 0.10	0.50 \pm 0.30	0.50 \pm 0.30	
CRH18B		3.20 ^{+0.05} / _{-0.20}	1.60 ^{+0.05} / _{-0.15}	0.60 \pm 0.10	0.50 \pm 0.25	0.50 \pm 0.20	
CRH14	1210	3.10 \pm 0.15	2.65 \pm 0.15	0.55 \pm 0.10	0.50 \pm 0.20	0.50 MAX	5,000
CRH12	2010	5.10 \pm 0.15	2.60 \pm 0.15	0.55 \pm 0.10	0.80 \pm 0.20	0.80 MAX	4,000
CRH01	2512	6.40 \pm 0.15	3.10 \pm 0.15	0.55 \pm 0.10	0.80 \pm 0.20	1.30 MAX	4,000
CRH01A		6.40 \pm 0.20	3.2 \pm 0.20	0.55 \pm 0.10	0.50 \pm 0.30	0.50 \pm 0.30	



CRH- Thick Film Chip Resistors High Resistance

The content of this specification may change without notification 09/22/10



ELECTRICAL CHARACTERISTICS

Series	Size	Rated Power	Voltage (Max.)*		Operating Temperature	Resistance Range by Tolerance & TCR (ppm/°C)			
			Working	Overload		±1%	±5%	±10%	±20%
						+400 ~ -100 ppm	±500 ppm	±500 ppm	±500 ppm
CRH05	0402	1/20 w	25 V	50 V	-55 ~ +155°C	10M ~ 100M	10M ~ 30M	10M ~ 100M	
CRH16	0603	1/16w	50 V	100 V	-55 ~ +155°C	10M ~ 100M	10M ~ 100M	10M ~ 470M	110M ~ 1.0G
CRH10	0805	1/10w	150 V	300 V	-55 ~ +155°C	10M ~ 100M	10M ~ 100M	10M ~ 470M	110M ~ 1.0G
CRH18	1206	1/8w	200 V	400 V	-55 ~ +155°C	10M ~ 100M	10M ~ 100M	10M ~ 470M	110M ~ 1.0G
CRH14	1210	1/4w	200 V	400 V	-55 ~ +155°C	10M ~ 100M	10M ~ 100M	10M ~ 470M	110M ~ 1.0G
CRH12	2010	1/2w	200 V	400 V	-55 ~ +155°C	10M ~ 100M	10M ~ 100M	10M ~ 470M	110M ~ 1.0G
CRH01	2512	1w	200 V	400 V	-55 ~ +155°C	10M ~ 100M	10M ~ 100M	10M ~ 470M	110M ~ 1.0G

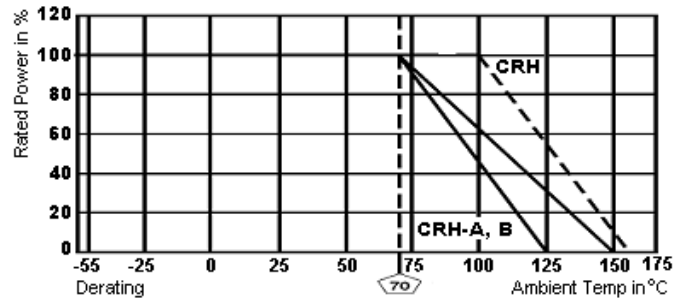
Series	Size	Rated Power	Voltage (Max.)*		Operating Temperature	Resistance Range by Tolerance & TCR (ppm/°C)			
			Working	Overload		±1%, ±2%	±5%	±10%	±20
						±100 ppm	±250 ppm		±1500 ppm
CRH16A	0603	1/32w	50V	100V	-55 ~ 125°C	1.0M ~ 50M	1M ~ 1G	1M ~ 1G	1.1G ~ 100G
CRH10A	0805	1/16w	75 V	150 V	-55 ~ +125°C	1.0M ~ 50M	1M ~ 1G	1M ~ 1G	1.1G ~ 100G
CRH18A	1206	1/8w	150 V	300 V	-55 ~ +125°C	1.0M ~ 50M	1M ~ 1G	1M ~ 1G	1.1G ~ 100G
CRH01A	2512	1w	300 V	500 V	-55 ~ +125°C		1M ~ 1G	1M ~ 1G	1.1G ~ 100G

Series	Size	Rated Power	Voltage (Max.)*		Operating Temperature	Resistance Range by Tolerance & TCR (ppm/°C)	
			Working	Overload		±5%, ±10%, ±20%	
						±500 ppm	±1500 ppm
CRH05B	0402	1/16w	50 V	100 V	-55 ~ +125°C	10M ~ 100M	
CRH16B	0603	1/16w	50 V	100 V	-55 ~ +125°C	43M ~ 1.0G	
CRH10B	0805	1/10w	150 V	300 V	-55 ~ +125°C	43M ~ 1.0G	1.2G ~ 10G
CRH18B	1206	1/8w	200 V	400 V	-55 ~ +125°C	43M ~ 1.0G	1.2G ~ 10G

* Rated Voltage = $\sqrt{P \times R}$

DERATING CURVE

If the ambient temperature exceeds 70°C, then the rated power must be derated according to the power derating curve shown to the right.



PERFORMANCE

Test Item	Test Conditions	Test Results	
		±100ppm parts	> ±100ppm parts
Long Term Stability	Normal temperature and humidity for 1,000 hours	±0.5%	±0.5%
High Temperature Loading	DC15V, 1.5 hours on, 0.5 hours off, 1,000 hours at 70°C	±0.5%	±1.0%
Resistance to Soldering Heat	260°C ± 5°C for 10+1-0 seconds	±0.5%	±1.0%
Short Time Overload	Test for 5 seconds using maximum Overload Voltage	±0.5%	±1.0%
Operating Temperature Range	Refer to electrical characteristics		

