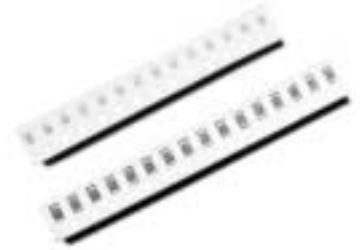


FEATURES

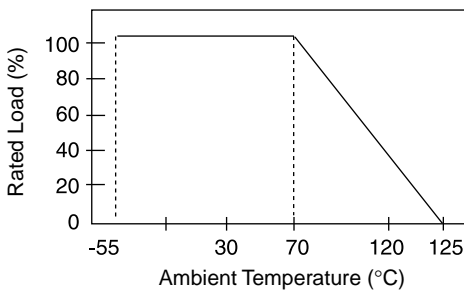
- High purity alumina substrate
- Wave or flow solderable
- Excellent high frequency characteristics
- Wrap around termination
- Inner electrode protection



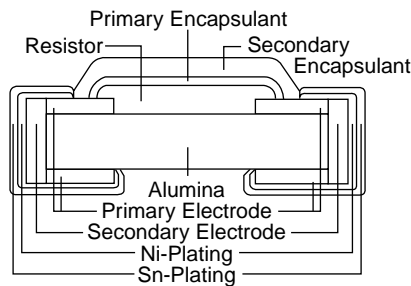
CHARACTERISTICS

Item	Characteristics
Operating Temperature Range	-55°C ~ +125°C
Temperature Coefficient	±100ppm/°C @ room temperature +100°C
Temperature Cycling	±(1.0% +0.1Ω) max. @ -55°C ~ +125°C
Short Time Overload	±(2.0% +0.1Ω) max. with rated voltage x 2.5 for 5 seconds
Humidity Load Life	±(3.0% +0.1Ω) max. @40°C RH 90~95%
Load Life	±(3.0% +0.1Ω) max. @ 70°C
Vibration	±(1.0% +0.1Ω) max. @ low frequency, 3 directions for 2 hours in each direction
Solderability	90% min. coverage @ 230°C for 3 seconds
Resistance to Soldering Heat	±(2.5% +0.1Ω) max. @ 260°C for 10 seconds
Termination Adhesion	±(1.0% +0.1Ω) max. @ 500g
Range of Values	10Ω ~ 1MΩ
Reel Quantity	5,000 per reel

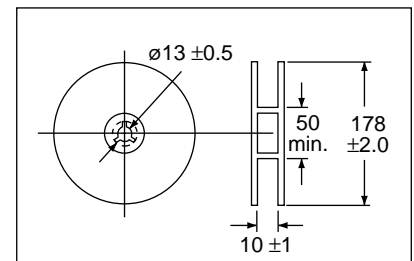
DERATING CURVE



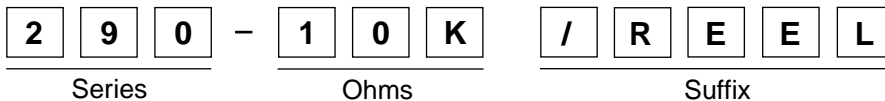
STRUCTURE



REEL DIMENSIONS (mm)

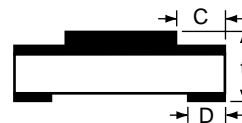
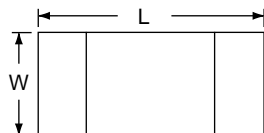


PART NUMBERING SYSTEM



Suffix Code:	Package:
-BK	Bulk
/REEL	Tape and Reel

SERIES, SIZE, WATTAGE, VOLTAGE, AND DIMENSIONS



* Max. Power Rating @ 70°C, see Derating Curve.

Series	Case Size	Power Rating	Max. Power Rating *	Voltage (max.)		Dimensions (mm)				
				W.V.	O.V.	L	W	C	D	t
290	1206	1/8	1/4	200	400	3.1 ± 0.15	1.55 ± .10	0.45 ± 0.2	0.45 ± 0.2	0.55 ± 0.10
292	0805	1/10	1/8	150	300	2.0 ± 0.15	1.25 ± .10	0.40 ± 0.2	0.40 ± 0.2	0.55 ± 0.10
302	0603	1/16	1/10	50	100	1.6 ± 0.10	0.8 ± 0.1	0.30 ± 0.2	0.30 ± 0.2	0.45 ± 0.10
304	0402	1/16		25	50	1.00 ± 0.1	0.5 ± 0.05	0.2 ± 0.1	0.25 ± 0.1	0.35 ± 0.05

■ STANDARD STOCKED VALUES (Ω)

10	16.9	28.7	48.7	82.5	140	237	392	665	1.13K	1.91K	3.16K	5.36K	9.09K	15.4K	26.1K	43.2K	73.2K	124K	210K	348K	590K	
10.2	17.4	29.4	49.9	84.5	143	243	402	681	1.15K	1.96K	3.24K	5.49K	9.31K	15.8K	26.7K	44.2K	75K	127K	215K	357K	604K	
10.5	17.8	30.1	51.1	86.6	147	249	412	698	1.18K	2.0K	3.32K	5.62K	9.53K	16.2K	27.4K	45.3K	76.8K	130K	221K	365K	619K	
10.7	18.2	30.9	52.3	88.7	150	255	422	715	1.21K	2.05K	3.4K	5.76K	9.76K	16.5K	28K	46.4K	78.7K	133K	226K	374K	634K	
11	18.7	31.6	53.6	90.9	154	261	432	732	1.24K	2.1K	3.48K	5.9K	10K	16.9K	28.7K	47.5K	80.6K	137K	232K	383K	649K	
11.3	19.1	32.4	54.9	93.1	158	267	442	750	1.27K	2.15K	3.57K	6.04K	10.2K	17.4K	29.4K	48.7K	82.5K	140K	237K	392K	665K	
11.5	19.6	33.2	56.2	95.3	162	274	453	768	1.3K	2.21K	3.65K	6.19K	10.5K	17.8K	30K	49.9K	84.5K	143K	243K	402K	681K	
11.8	20	34	57.6	97.6	165	280	464	787	1.33K	2.26K	3.74K	6.34K	10.7K	18.2K	30.1K	51.1K	86.6K	147K	249K	412K	698K	
12.1	20.5	34.8	59	100	169	287	475	806	1.37K	2.32K	3.83K	6.49K	11.K	18.7K	30.9K	52.3K	88.7K	150K	255K	422K	715K	
12.4	21	35.7	60.4	102	174	294	487	825	1.40K	2.37K	3.92K	6.65K	11.3K	19.1K	31.6K	53.6K	90.9K	154K	261K	432K	732K	
12.7	21.5	36.5	61.9	105	178	300	499	845	1.43K	2.43K	4.02K	6.81K	11.5K	19.6K	32.4K	54.9K	93.1K	158K	267K	442K	750K	
13	22.1	37.4	63.4	107	182	301	511	866	1.47K	2.49K	4.12K	6.98K	11.8K	20K	33.2K	56.2K	95.3K	162K	274K	453K	768K	
13.3	22.6	38.3	64.9	110	187	309	523	887	1.5K	2.55K	4.22K	7.15K	12.1K	20.5K	34.K	57.6K	97.6K	165K	280K	464K	787K	
13.7	23.2	39.2	66.5	113	191	316	536	909	1.54K	2.61K	4.32K	7.32K	12.4K	21.K	34.8K	59.0K	100K	169K	287K	475K	806K	
14	23.7	40.2	68.1	115	196	324	549	931	1.58K	2.67K	4.42K	7.5K	12.7K	21.5K	35.7K	60.4K	102K	174K	294K	487K	825K	
14.3	24.3	41.2	69.8	118	200	332	562	953	1.62K	2.74K	4.53K	7.68K	13K	22.1K	36.5K	61.9K	105K	178K	300K	499K	845K	
14.7	24.9	42.2	71.5	121	205	340	576	976	1.65K	2.8K	4.64K	7.87K	13.3K	22.6K	37.4K	63.4K	107K	182K	301K	511K	866K	
15	25.5	43.2	73.2	124	210	348	590	1.0K	1.69K	2.87K	4.75K	8.06K	13.7K	23.2K	38.3K	64.9K	110K	187K	309K	523K	887K	
15.4	26.1	44.2	75	127	215	357	604	1.02K	1.74K	2.94K	4.87K	8.25K	14.K	23.7K	39.2K	66.5K	113K	191K	316K	536K	909K	
15.8	26.7	45.3	76.8	130	221	365	619	1.05K	1.78K	3.0K	4.99K	8.45K	14.3K	24.3K	40.2K	68.1K	115K	196K	324K	549K	931K	
16.2	27.4	46.4	78.7	133	226	374	634	1.07K	1.82K	3.01K	5.11K	8.66K	14.7K	24.9K	41.2K	69.8K	118K	200K	332K	562K	953K	
16.5	28	47.5	80.6	137	232	383	649	1.1K	1.87K	3.09K	5.23K	8.87K	15K	25.5K	42.2K	71.5K	121K	205K	340K	576K	976K	
																						1M