



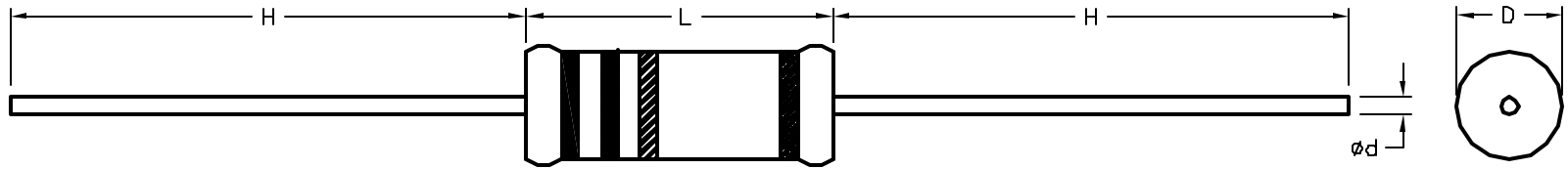
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SPC-F008.DWG

REVISIONS

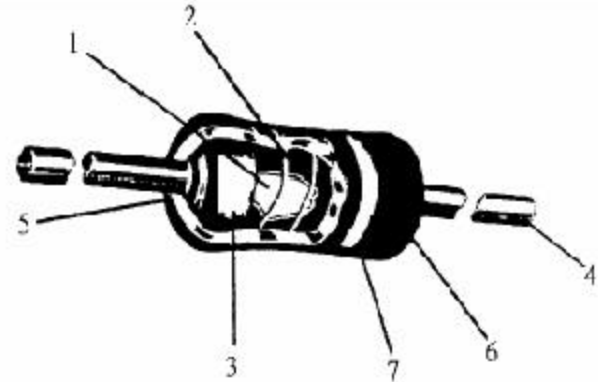
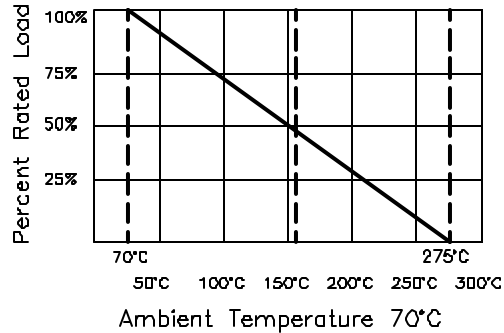
DOC. NO. SPC-F005 * Effective: 7/8/02 * DCP No: 1398

DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1991	A	RELEASED	JN	07/03/08	JWM	07/07/08	JWV	07/07/08
1995	B	Additional parts added	JN	08/08/08	JWM	08/08/08	JWM	08/08/08



Note:
 - Temperature Coefficient: <math><20\Omega: \pm 400 \text{ ppm}/^\circ\text{C}</math>;
 $\geq 20\Omega \pm 300 \text{ ppm}/^\circ\text{C}$

Wattage Derating Chart



No.	Name	Material
1	Basic Body	Rod Type Ceramics
2	Resistor	Cu-Ni Alloy / Ni-Cr Alloy
3	End Cap	Steel (Tin plated iron surface)
4	Lead Wire	annealed copper wire coated with tin
5	Joint	By Welding
6	Coating	Insulated & Non-Flame paint (Color: Light Green)
7	Color Code	Non-Flame Epoxy Resin

DISCLAIMER:
 ALL STATEMENTS AND TECHNICAL INFORMATION CONTAINED HEREIN ARE BASED UPON INFORMATION AND/OR TESTS WE BELIEVE TO BE ACCURATE AND RELIABLE. SINCE CONDITIONS OF USE ARE BEYOND OUR CONTROL, THE USER SHALL DETERMINE THE SUITABILITY OF THE PRODUCT FOR THE INTENDED USE AND ASSUME ALL RISK AND LIABILITY WHATSOEVER IN CONNECTION THEREWITH.

TOLERANCES:

UNLESS OTHERWISE SPECIFIED,
 .XX ±0.125
 .XXX ±0.062
 .XXXX ±0.0005

DRAWN BY:	DATE:
Jason Nash	07/03/08
CHECKED BY:	DATE:
JWM	07/07/08
APPROVED BY:	DATE:
JWM	07/07/08

DRAWING TITLE: RoHS Compliant Wirewound Resistors			
SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	TA-883	TA-883.DWG	A
SCALE: NTS	U.O.M.: INCHES	SHEET: 1 OF 3	

Performance specification



Characteristics	Limits	Test Methods (JIS - C - 5201-1)															
Temperature coefficient	±300 PPM/°C Max. <20 Ω ± 400 PPM/°C	Natural resistance change per temp. degree centigrade $\frac{R2-R1}{R1(t2-t1)} \times 10^6$ (PPM/°C) R1: Resistance value at room temperature (t1) R2: Resistance value at room temp. plus 100°C (t2)															
Short time overload	Resistance change rate is: ± (2.0 % + 0.05 Ω) Max.	Permanent resistance change after the application of a potential of 2.5 times RCWV for 5 seconds															
Short time overload	No Evidence of mechanical damage	-Direct Load: Resistance to a 2.5kgs direct load for 10sec. in the direction of the longitudinal axis of the terminal leads. -Twist test: Terminal leads shall be bent through 90° at a point of about 6mm from the body of the resistor and shall be rotated through 360° about the original axis of the bent terminal in alternating direction for a total of 3 rotations.															
Temperature cycling	± (0.5 % + 0.05Ω) Max.	Resistance change after continuous 5 cycles for duty cycle specified below: <table border="1"> <thead> <tr> <th>Step</th> <th>Temperature</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>-55°C ±3°C</td> <td>30 mins</td> </tr> <tr> <td>2</td> <td>Room temp.</td> <td>10 ~ 15 mins</td> </tr> <tr> <td>3</td> <td>-155°C ±2°C</td> <td>30 mins</td> </tr> <tr> <td>4</td> <td>Room temp.</td> <td>10 ~ 15 mins</td> </tr> </tbody> </table>	Step	Temperature	Time	1	-55°C ±3°C	30 mins	2	Room temp.	10 ~ 15 mins	3	-155°C ±2°C	30 mins	4	Room temp.	10 ~ 15 mins
Step	Temperature	Time															
1	-55°C ±3°C	30 mins															
2	Room temp.	10 ~ 15 mins															
3	-155°C ±2°C	30 mins															
4	Room temp.	10 ~ 15 mins															
Load life in humidity	Resistance change rate is ± (5.0 % + 0.05 Ω) Max.	Resistance change after 1,000 hours (1.5 hours "on", 0.5 hour "off") at RCWV in a humidity chamber controlled at 40°C ±2°C and 90 to 95 % relative humidity															
Load Life	Resistance change rate is ± (5.0 % + 0.05 Ω) Max.	Permanent resistance change after 1,000 hours operating at RCWV, with duty cycle of (1.5 hours "on", 0.5 hour "off") at 70°C ±2°C ambient															
Resistance to Soldering Heat	Resistance change rate is ± (1 % + 0.05 Ω) Max. with no evidence of mechanical damage.	Permanent resistance change when leads immersed to 3.2 to 4.8 mm from the body in 350°C ± 10°C solder for 3± 0.5 seconds.															
Solderability	95 % coverage Min.	Test temperature of solder : 245 °C ± 3°C Dwell time in solder : 2 - 3 seconds															

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SIZE
A

DWG. NO.

TA-883

ELECTRONIC FILE

TA-883.DWG

REV
A



Mfg. Part No.	Resistance (Ohms)	Temperature Coefficient Tolerance	Wattage (W)	D + 1	L + 1	d + 0.05	H + 3
MCKNP03UJ010JB00	1	+/-50ppm/°C	3W	5.5 mm	13.5 mm	0.70 mm	28 mm
MCKNP03UJ010KB00	0.1	+/-90ppm/°C	3W				
MCKNP03UJ0100B00	10	+/-20ppm/°C	3W				
MCKNP03UJ0101B00	100	+/-20ppm/°C	3W				
MCKNP03UJ0102B00	1	+/-20ppm/°C	3W				
MCKNP03UJ0121B00	120	+/-20ppm/°C	3W				
MCKNP03UJ0122B00	1.2	+/-20ppm/°C	3W				
MCKNP03UJ0152B00	1.5	+/-20ppm/°C	3W				
MCKNP03UJ020JB00	2	+/-50ppm/°C	3W				
MCKNP03UJ020KB00	0.2	+/-90ppm/°C	3W				
MCKNP03UJ0201B00	200	+/-20ppm/°C	3W				
MCKNP03UJ0202B00	2	+/-20ppm/°C	3W				
MCKNP03UJ0221B00	220	+/-20ppm/°C	3W				
MCKNP03UJ0250B00	25	+/-20ppm/°C	3W				
MCKNP03UJ0251B00	250	+/-20ppm/°C	3W				
MCKNP03UJ0301B00	300	+/-20ppm/°C	3W				
MCKNP03UJ0302B00	3	+/-20ppm/°C	3W				
MCKNP03UJ0331B00	330	+/-20ppm/°C	3W				
MCKNP03UJ0400B00	40	+/-20ppm/°C	3W				
MCKNP03UJ0401B00	400	+/-20ppm/°C	3W				
MCKNP03UJ0402B00	4	+/-20ppm/°C	3W				
MCKNP03UJ0471B00	470	+/-20ppm/°C	3W				
MCKNP03UJ050JB00	5	+/-50ppm/°C	3W				
MCKNP03UJ050KB00	0.5	+/-90ppm/°C	3W				
MCKNP03UJ0500B00	50	+/-20ppm/°C	3W				
MCKNP03UJ0501B00	500	+/-20ppm/°C	3W				
MCKNP03UJ0502B00	5	+/-20ppm/°C	3W				
MCKNP03UJ0750B00	75	+/-20ppm/°C	3W				
MCKNP07SF100JB00	10	+/-20ppm/°C	7W				
MCKNP07SF100KB00	1	+/-50ppm/°C	7W				
MCKNP07SF1000B00	100	+/-20ppm/°C	7W				
MCKNP07SF1002B00	10	+/-20ppm/°C	7W				
MCKNP07SF1500B00	150	+/-20ppm/°C	7W				
MCKNP07SF2000B00	200	+/-20ppm/°C	7W				
MCKNP07SF2500B00	250	+/-20ppm/°C	7W				
MCKNP07SF500JB00	50	+/-20ppm/°C	7W				
MCKNP0ASF100JB00	10	+/-20ppm/°C	10W				
MCKNP0ASF100KB00	1	+/-50ppm/°C	10W				
MCKNP0ASF1000B00	100	+/-20ppm/°C	10W				
MCKNP0ASF150JB00	15	+/-20ppm/°C	10W				
MCKNP0ASF200KB00	2	+/-50ppm/°C	10W				
MCKNP0ASF300JB00	30	+/-20ppm/°C	10W				
MCKNP0ASJ010KB00	1	+/-50ppm/°C	10W				

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SPC-F005.DWG	DOC. NO. SPC-F005 * Effective: 7/8/02 * DCP No: 1388	SCALE: NTS	U.O.M.: Millimeters	SHEET: 3 OF 3
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