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SPC-F005.DWG

REVISIONS

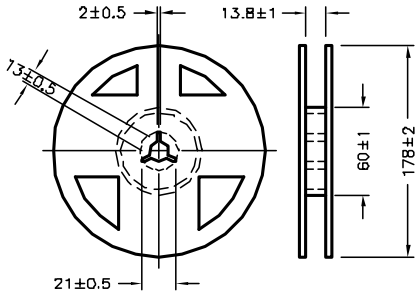
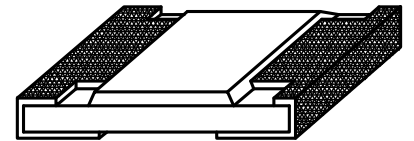
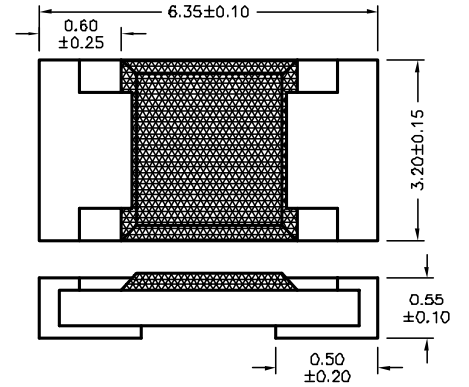
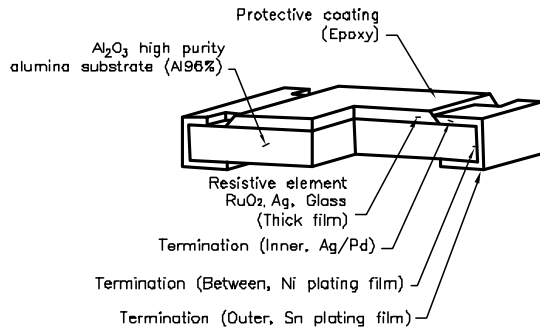
DCP #	REV	DESCRIPTION	DRAWN	DATE	CHECKD	DATE	APPRVD	DATE
1991	A	Released	JN	04/14/09	JWM	04/14/09	JWM	04/14/09

DOC. NO. SPC-F005 * Effective: 7/8/02 * DCP No: 1308

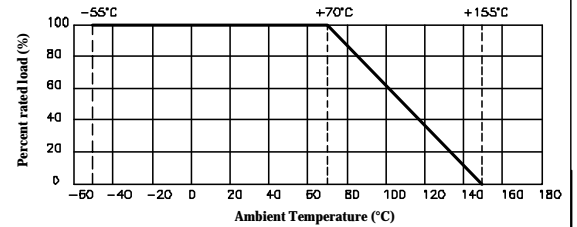
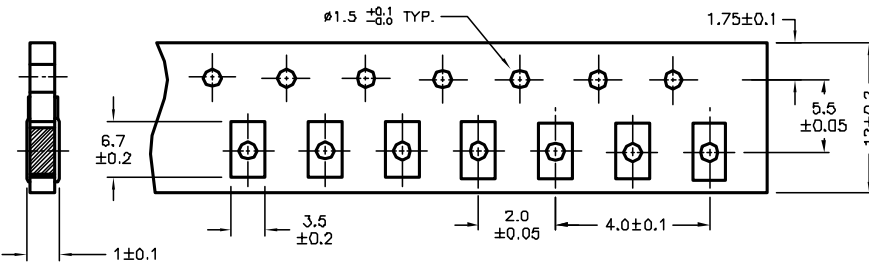


Specifications:

- Power Rating: 1 Watt
- Ambient Temperature: 70°C
- Max. Working Voltage: 200 V
- Max. Overload Voltage: 400 V
- Temperature Range: -55°C ~ +125°C
- Resistance Range: (See parts table)
- Resistance Tolerance: 1%



Tape & Reel Dimension



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, DIMENSIONS ARE FOR REFERENCE PURPOSES ONLY.

DRAWN BY:	DATE:
Jason Nash	04/14/09
CHECKED BY:	DATE:
JEFF MCVICKER	04/14/09
APPROVED BY:	DATE:
JEFF MCVICKER	04/14/09

DRAWING TITLE:			
RoHS Compliant Thick Film Chip Resistors, 1W			
SIZE	DWG. NO.	ELECTRONIC FILE	REV
A	Ta-1091	Ta-1091.DWG	A
SCALE:	NTS	U.Q.M.: Millimeters	SHEET: 1 OF 3

Performance specification

Characteristics	Limits	Test Methods (JIS - C - 5201-1)															
Temperature coefficient	100-1M0 O ± 100 PPM/°C	5.2 Natural resistance change per temp. degree centigrade $\frac{R2-R1}{R1(t2-t1)} \times 10^6 \text{ (PPM/°C)}$ R1: Resistance value at room temperature (t1) R2: Resistance value at room temp. plus 100°C (t2)															
Short time overload	Resistance change rate is: ± (1.0 % + 0.1 Ω) Max.	5.5 Permanent resistance change after the application of a potential of 2.5 times RCWV for 5 seconds															
Insulation resistance	1,000 MO or more	5.6 Apply 500V DC between protective coating and termination for 1 min, then measure															
Dielectric withstanding voltage	No evidence of flashover mechanical damage, arcing or insulation break down	5.7 Apply 500V AC between protective coating and termination for 1 minute															
Terminal bending	± (1.0 % + 0.05O) Max.	6.1.4 Twist of Test Board: Y/X = 5/90 mm for 10 seconds															
Temperature cycling	± (0.5 % + 0.05O) Max.	7.4 Resistance change after continuous 5 cycles for duty cycle specified below: <table border="1" style="margin: 10px auto;"> <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>-125°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	-125°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	-125°C ±2°C	30 mins															
4	Room temp.	10 ~ 15 mins															
Load life in humidity	Resistance change rate is ± (1.0 % + 0.1 Ω) Max.	7.9 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 ± (1.0 % + 0.1 Ω) Max.	7.10 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															
Soldering Heat	Electrical characteristics shall be satisfied. Without distinct deformation in appearance.	<u>Solder bath method</u> Pre-heat: 100 to 105°C, 30 ± 5 sec Temperature: 265 ± 3°C, 5 + 1/-0 sec. <u>Reflow soldering method</u> Peak: 250 + 5/-0°C 230 °C or higher 30 ± 10 sec. <u>soldering iron method</u> Bit temperature: 350 ± 10°C Application time of soldering iron : 3+ 1/-0 sec.															
Solderability	95 % coverage Min.	6.5 Test temperature of solder : 245 °C ± 3°C Dipping them solder : 2 - 3 seconds															

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SIZE DWG. NO.

A

Ta-1091

ELECTRONIC FILE

Ta-1091.DWG

REV

A

SPC-F005.DWG

DOC. NO. SPC-F005 • Effective: 7/8/02 • DCP No: 1388

SCALE: NTS

U.Q.M.: Millimeters

SHEET: 2 OF 3

Manufact Part #	Resistance	Sell Unit of Measure
MC25121WF1000T4E	100ohm	Tape & Cut
MC25121WF1000T4E	100ohm	Tape & Reel
MC25121WF1001T4E	1kohm	Tape & Cut
MC25121WF1001T4E	1kohm	Tape & Reel
MC25121WF1003T4E	100kohm	Tape & Cut
MC25121WF1003T4E	100kohm	Tape & Reel
MC25121WF100JT4E	10ohm	Tape & Cut
MC25121WF100JT4E	10ohm	Tape & Reel
MC25121WF1300T4E	130ohm	Tape & Cut
MC25121WF1300T4E	130ohm	Tape & Reel
MC25121WF1500T4E	150ohm	Tape & Cut
MC25121WF1500T4E	150ohm	Tape & Reel
MC25121WF2000T4E	200ohm	Tape & Cut
MC25121WF2000T4E	200ohm	Tape & Reel
MC25121WF2001T4E	2.00kohm	Tape & Cut
MC25121WF2001T4E	2kohm	Tape & Reel
MC25121WF200JT4E	20ohm	Tape & Cut
MC25121WF200JT4E	20ohm	Tape & Reel
MC25121WF2210T4E	221ohm	Tape & Cut
MC25121WF2210T4E	221ohm	Tape & Reel
MC25121WF2211T4E	2.21kohm	Tape & Cut
MC25121WF2211T4E	2.21kohm	Tape & Reel
MC25121WF221JT4E	22.1ohm	Tape & Cut
MC25121WF221JT4E	22.1ohm	Tape & Reel
MC25121WF2490T4E	249ohm	Tape & Cut
MC25121WF2490T4E	249ohm	Tape & Reel

Manufact Part #	Resistance	Sell Unit of Measure
MC25121WF2741T4E	2.74kohm	Tape & Cut
MC25121WF2741T4E	2.74kohm	Tape & Reel
MC25121WF3010T4E	301ohm	Tape & Cut
MC25121WF3010T4E	301ohm	Tape & Reel
MC25121WF3321T4E	3.32kohm	Tape & Cut
MC25121WF3321T4E	3.32kohm	Tape & Reel
MC25121WF332JT4E	33.2ohm	Tape & Cut
MC25121WF332JT4E	33.2ohm	Tape & Reel
MC25121WF4751T4E	4.75kohm	Tape & Cut
MC25121WF4751T4E	4.75kohm	Tape & Reel
MC25121WF475JT4E	47.5ohm	Tape & Cut
MC25121WF475JT4E	47.5ohm	Tape & Reel
MC25121WF4990T4E	499ohm	Tape & Cut
MC25121WF4990T4E	499ohm	Tape & Reel
MC25121WF4991T4E	4.99kohm	Tape & Cut
MC25121WF4991T4E	4.99kohm	Tape & Reel
MC25121WF499JT4E	49.9ohm	Tape & Cut
MC25121WF499JT4E	49.9ohm	Tape & Reel
MC25121WF681JT4E	68.1ohm	Tape & Cut
MC25121WF681JT4E	68.1ohm	Tape & Reel
MC25121WF7500T4E	750ohm	Tape & Cut
MC25121WF7500T4E	750ohm	Tape & Reel
MC25121WF931JT4E	93.1ohm	Tape & Cut
MC25121WF931JT4E	93.1ohm	Tape & Reel
MC2512WF1000T4E	100ohm	Tape & Cut
MC2512WF1000T4E	100ohm	Tape & Reel

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