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7KLV VSHFLILFDWLRQ GHVFULEHV 5, VHULHV FKLS UHVLVWRUV ZLWK OHDG IUHH WHUPLQDWLRQV PDGH E\ WKLFN ILOP SURFHVV

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- y +DORJHQ)UHH (SR[\
- y 5R+6 FRPSOLDQW
  - , 3URGXFWV ZLWK OHDG IUHH WHUPLQDWLRQV PHHW 5R+6 UHTXLUHPHQWV
  - , 3E JODVV FRQWDLQHG LQ HOHFWURGHV UHVLVWRU HOHPHQW DQG JODVV DUH H[HPSWHG E\ 5R+6
- y 5HGXFLQJ HQYLURQPHQWDO KD]DUGRXV ZDVWHV
- y +LJK FRPSRQHQW DQG HTXLSPHQW UHOLDELOLW\
- y 6DYLQJ RI 3&% VSDFH
- y 1RQH IRUELGGHQ PDWHULDO XVHG LQ SURGXFWV SURGXFWLRQ

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3DUW QXPEHUV DUH LGHQWLILHG E\ WKH VHULHV VL]H WROHUDQFH SDFNLQJ W\SH WHPSHUDWXUH FRHIILFLHQW WDSLQJ UHHO DQG UHVLVWDQFH YDOXH/

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 Value = 10 KΩ),*	(VHULHV GLJLWV) LUVWWZR GLJLWV IRUVLJQLILFDQWLJXUH DQG UG GLJLWRUQXP EHURI] HURV
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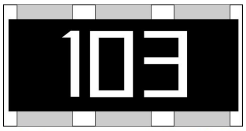
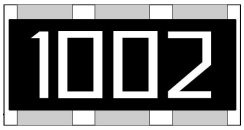
 Value = 10 KΩ),*	(VHULHV GLJLWV “) LUVWWZR GLJLWV IRUVLJQLILFDQWLJXUH DQG UG GLJLWRUQXP EHURI] HURV
 Value = 10 KΩ),*	%RWK (DQG (VHULHV GLJLWV “ “) LUVWWKUHH GLJLWV IRUVLJQLILFDQWLJXUH DQG WK GLJLWRUQXP EHURI] HURV

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2 XWOLQHV

For dimensions, please refer to Table 1

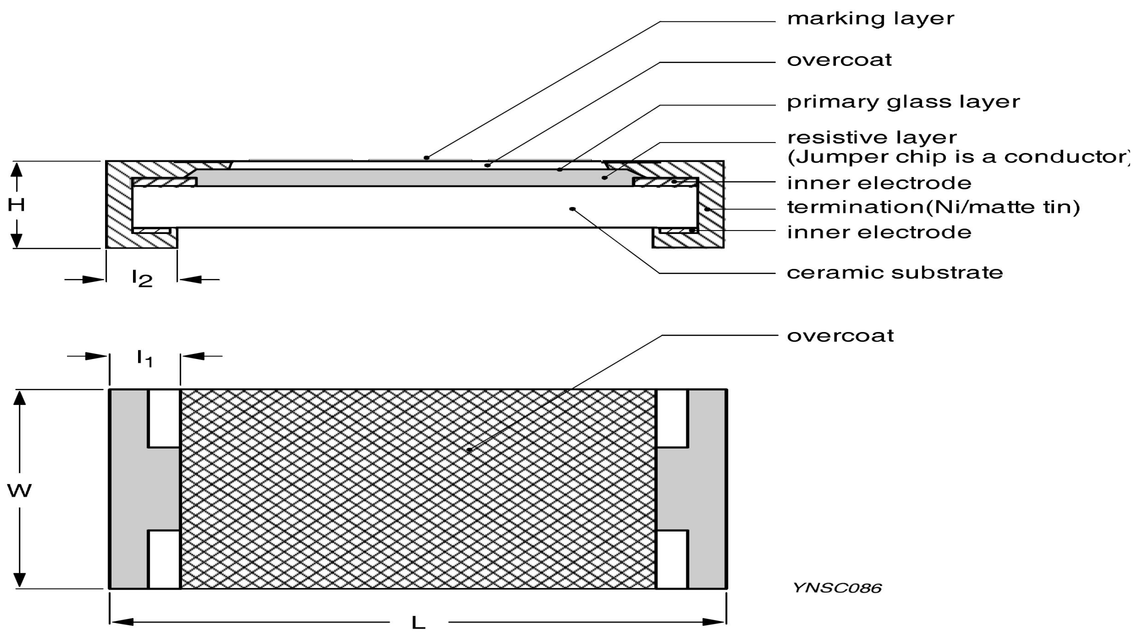

Fig. 9 Chip resistor outlines

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RI 0402 to RI 2512 Range : -55°C to +155°C (Fig. 10-1)

RI 0075 to RI 0201 Range : -55°C to +125°C (Fig. 10-2)

POWER RATING

Each type rated power at 70 °C:
RI 0075=1/50W
RI 0100=1/32W
RI 0201=1/20W
RI 0402=1/16W, 1/8W
RI 0603=1/10W, 1/5W
RI 0805=1/8W , 1/4W
RI 1206=1/4W , 1/2W
RI 1210=1/2W
RI 1218=1W
RI 1812=3/4W
RI 2010=3/4W
RI 2512=1W , 2W

RATED VOLTAGE

The DC or AC (rms) continuous working voltage corresponding to the rated power is determined by the following formula:

$V = \sqrt{(PxR)}$

or max. working voltage whichever is less
Where
V = Continuous rated DC or AC (rms) working voltage (V)
P = Rated power (W)
R = Resistance value (Ω)

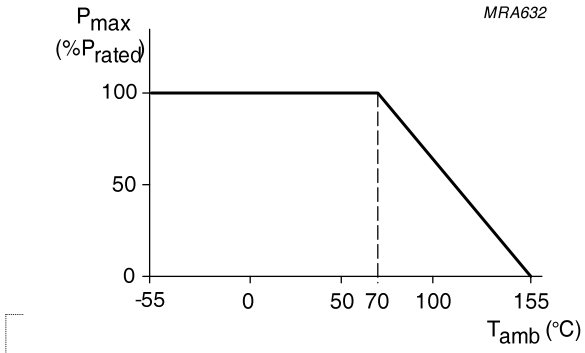

Fig. 10-1 Maximum dissipation (P) in percentage of rated poweras a function of the operating ambient temperature (Tamb)

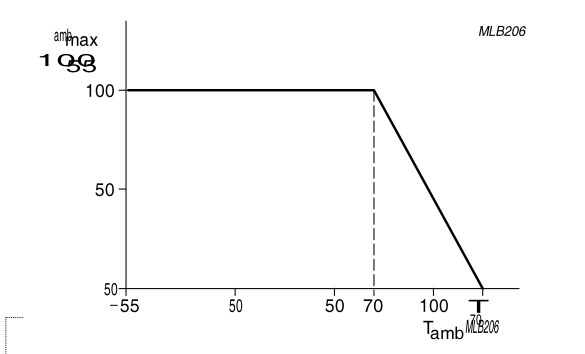

Fig. 10-2 Maximum dissipation (P) in percentage of rated poweras a function of the operating ambient temperature (Tamb)

TESTS AND REQUIREMENTS

Table 8 Test condition, procedure and requirements

TEST	TEST METHOD	PROCEDURE	REQUIREMENTS
Temperature Coefficient of Resistance (T.C.R.)	MIL-STD-202 Method 304	At +25/–55°C and +25/+125°C **Formula:** $T.C.R=\frac{R_2-R_1}{R_1(t_2-t_1)}\times 10^6$ (ppm/°C) Where t_1=+25 °C or specified room temperature t_2=–55 °C or +125 °C test temperature R_1=resistance at reference temperature in ohms R_2=resistance at test temperature in ohms	Refer to table 2
Life/ Endurance	MIL-STD-202 Method 108A IEC 60115-1 4.25.1	At 70±2°C for 1,000 hours; RCWV applied for 1.5 hours on and 0.5 hour off, still air required	0075: ± (5%+100mΩ) <100mΩ for jumper 01005: ±(3% +50mΩ) <100mΩf or jumper Others: ±(1%+50mΩ) for B/D/F tol ±(3%+50mΩ) for J tol <100mR for jumper
High Temperature Exposure	MIL-STD-202 Method 108A IEC 60068-2-2	1,000 hours at maximum operating temperature depending on specification, unpowered.	0075: ± (5%+100mΩ) <100mΩ for jumper 01005: ±(1% +50mΩ) < 50mΩf or jumper Others: ±(1%+50mΩ) for B/D/F tol ±(2%+50mΩ) for J tol <50mR for jumper
Moisture Resistance	MIL-STD-202 Method 106G	Each temperature / humidity cycle is defined at 8 hours (method 106F), 3 cycles / 24 hours for 10d with 25°C / 65°C 95% R.H, without steps 7a & 7b, unpowered Parts mounted on test-boards, without condensation on parts	0075: ± (2%+100mΩ) <100mΩ for jumper 01005: ±(2% +50mΩ) < 100mΩf or jumper Others: ±(0.5%+50mΩ) for B/ D/F tol ±(2%+50mΩ) for J tol <100mR for jumper
Humidity	IEC 60115-1 4.24.2	Steady state for 1000 hours at 40°C / 95% R.H. RCWV applied for 1.5 hours on and 0.5 hour off	0075: ± (5%+100mΩ) no visible damage 01005: ±(3% +50mΩ) < 100mΩf or jumper Others: ±(1%+50mΩ) for B/D/F tol ±(2%+50mΩ) for J tol <100mR for jumper

Thermal Shock	MIL-STD-202 Method 107G	-55/+125°C Note Number of cycles required is 300. Devices mounted Maximum transfer time is 20 seconds. Dwell time is 15 minutes. Air - Air	0075/01005: ±(1% +50mΩ) < 50mΩf or jumper Others: ±(0.5%+50mΩ) for B/D/F tol ±(1%+50mΩ) for J tol < 50mR for jumper
Short Time Overload	IEC 60115-1 4.13	2.5 times RCWV or maximum overload voltage which is less for 5 seconds at room temperature	0075/01005: ±(2% +50mΩ) < 50mΩf or jumper Others: ±(1%+50mΩ) for B/D/F tol ±(2%+50mΩ) for J tol <50mR for jumper No visible damage
Board Flex/ Bending	IEC 60115-1 4.33	Device mounted or as described only 1 board bending required bending time: 60±5 seconds 0075/0100/0201/0402:5mm; 0603/0805:3mm; 1206 and above:2mm	0075/01005: ±(1% +50mΩ) < 50mΩf or jumper Others: ±(1%+50mΩ) for B/D/F/J tol <50mR for jumper No visible damage
Solderability - Wetting	J-STD-002 test B	Electrical Test not required Magnification 50X SMD conditions: 1st step: method B, aging 4 hours at 155°C dry heat 2nd step: leadfree solder bath at 245±3°C Dipping time: 3±0.5 seconds	W ell tinned (>95% covered) No visible damage
-Leaching	J-STD-002 test D	Leadfree solder ,260°C, 30 seconds immersion time	No visible damage
-Resistance to Soldering Heat	MIL-STD-202 Method 210F IEC 60115-1 4.18	Condition B, no pre-heat of samples Leadfree solder, 260°C ±5°C, 10 ±1 seconds immersion time Procedure 2 for SMD: devices fluxed and cleaned with isopropanol	0075: ± (3%+50mΩ) <50mΩ for jumper 01005: ±(1% +50mΩ) < 50mΩf or jumper Others: ±(0.5% +50mΩ) for B/D/F tol. ±(1% +50mΩ) for J tol. <50mR for jumper No visible damage