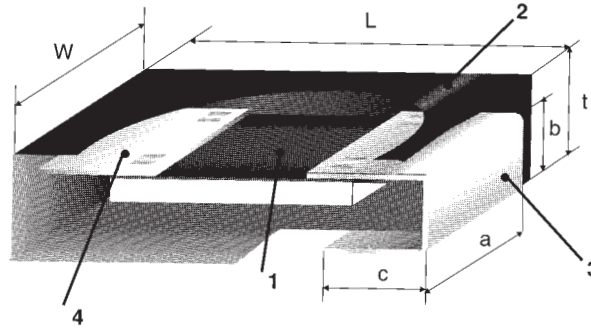


**METAL PLATE  
POWER CHIP  
NPR**



**STRUCTURE**

- 1 Resistive element\*
  - 2 Mold resin (LCP UL: 94 V-0)
  - 3 Termination, solder plating on copper plate
  - 4 Joining / Welding
- \* For values smaller 68 mΩ a metal plate is used



**IDENTIFICATION**

TYPE	COATING COLOR	MARKING
NPR1, NPR2	Black	Blue (resistance and tolerance)

Products with Pb-free terminations meet RoHS requirements

**TYPE DESIGNATION (HOW TO ORDER)**

Old Part No.	<b>NPR</b>	<b>1</b>	<b>J</b>	<b>TE</b>	<b>R0039</b>		
New Part No. (Pb-free)	<b>NPR</b>	<b>1</b>		<b>T</b>	<b>TE</b>	<b>3L9</b>	<b>J</b>
	PRODUCT CODE	POWER RATING	TOLERANCE	TERMINATION SURFACE MATERIAL	TAPING* TE, BK	NOMINAL RESISTANCE	TOLERANCE
		1: 1Watt 2: 2Watt		T: Sn L: Sn/Pb	*Please see "PACKAGING"	F: 4 digits J,K: 3 digits	F: ± 1% J: ± 5% K: ± 10%

**FEATURES**

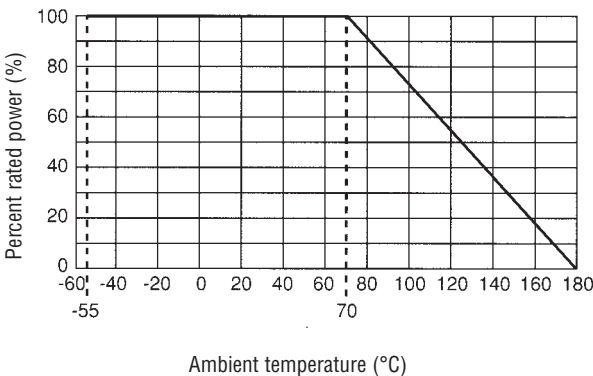
- Surface mount type power resistor
- Molded with flame retardent polimar LCP (UL94 V-0)
- Current detecting resistor for power supplies, motors etc.
- Excellent dimension accuracy, mountability and shock-resistance due to liquid crystal polimar mold
- Non wirewound structure and excellent frequency characteristics
- Excellent terminal strength and solderability due to metal electrode
- Rated ambient temperature: +70° C
- Operating temperature range: -55° C ... +180° C
- Meets or exceeds IEC 60 115-1, JIS C 5201-1
- Suitable for reflow, wave and iron soldering

**DIMENSIONS (mm)**

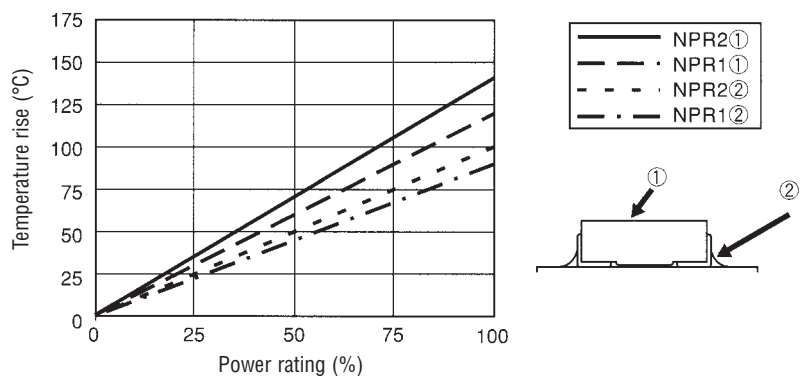
TYPE	L	W	t	a	b	c
NPR1	7.5 ± 0.5	4.5 ± 0.3	2.0 ± 0.3	2.5 ± 0.3	1.3 ± 0.3	1.4 ± 0.3
NPR2	12.0 ± 0.5	8.0 ± 0.3	4.0 ± 0.5	4.0 ± 0.3	3.0 ± 0.5	1.5 ± 0.5

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use.

**DERATING CURVE**



**TEMPERATURE RISE**



**RATING**

TYPE	POWER* RATING	T.C.R. (ppm/K)	MAX. WORKING VOLTAGE	MAX. OVERLOAD VOLTAGE	RESISTANCE RANGE (E24)		
					F (±1%)	J (±5%)	K (±10%)
NPR1	1 W	± 100 (R ≥ 0.1 Ω)	350 V	700 V	0.1 Ω ... 10 MΩ	0.01 Ω ... 22 MΩ	3.9 mΩ ... 9.1 mΩ
NPR2	2 W	± 200 (R < 0.1 Ω)	500 V	1000 V			

\*For resistors operated at an ambient temperature of +70°C or above, power rating shall be derated in accordance with the above derating curve.

Regarding the temperature rise, the value of the temperature varies per conditions and board for use since the temperature is measured under our measuring conditions.