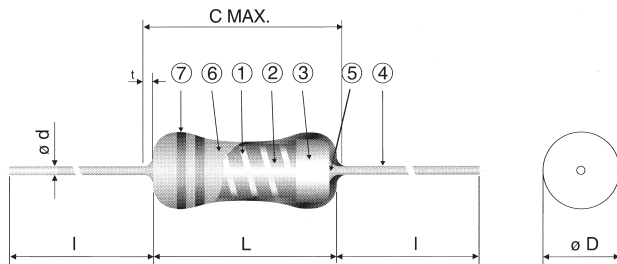
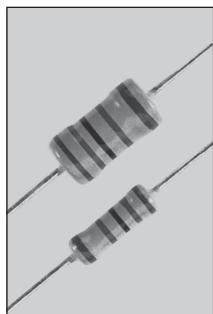


**METAL FILM  
STANDARD  
SN 3A • SN 3D**



**STRUCTURE**

- 1 Ceramic core
- 2 Trimmed metal film
- 3 Steel cap (Cu, Sn plated)
- 4 Lead wire
- 5 Welding joint
- 6 Epoxy resin overcoating
- 7 Marking



**IDENTIFICATION**

PRODUCT CODE	COATING COLOR	MARKING
SN 3A, SN 3D	Light Grey	Color Code (R-value and tolerance)

All these products have Pb-free terminations and meet EU-RoHS and China-RoHS requirements

**TYPE DESIGNATION (HOW TO ORDER)**

SN	3A	D	C	1002	F
PRODUCT CODE	POWER RATING	T.C.R.	TERMINATION SURFACE MATERIAL	NOMINAL RESISTANCE	RESISTANCE TOLERANCE
	3A: 1W 3D: 2W	C: ±50ppm/K D: ±100ppm/K L: ±200ppm/K	C: SnCu	D, F: 4 digits G: 3 digits	D: (±0.5%) F: (±1%) G: (±2%)

Contact us when you have control request for environmental hazardous material other than the substance specified by EU-RoHS

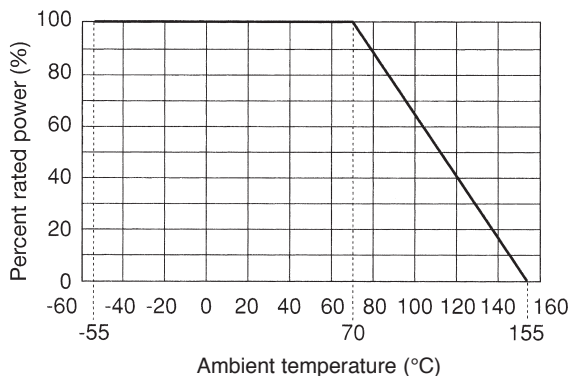
**FEATURES**

- Metal film resistors for high power
- High precision and low T.C.R. metal film resistor
- Excellent long term stability
- Meets or exceeds IEC 60 115-1, JIS C 5201-1
- Rated ambient temperature: +70°C
- Operating temperature range: -55°C ... +155°C

**DIMENSIONS (mm)**

TYPE	L	C Max.	ø D	ø d (nom.)	I
SN 3A	14.1 ± 2	18.3	4.8 ± 1		
SN 3D	16.5 ± 2	21.5	8.4 ± 1	1.0	38 ± 3

**DERATING CURVE**



**RATING**

TYPE	T.C.R. (ppm/K)	POWER RATING*	MAX. WORKING VOLTAGE	MAX. OVERLOAD VOLTAGE	DIELECTRIC WITHSTANDING VOLTAGE	RESISTANCE RANGE		
						E24 • E192	E24 • E96	E24
						D (±0.5%)	F (±1%)	G (±2%)
SN 3A	C (±50)	1 W	500 V	1000 V	1000 V	—	10 Ω ... 1 MΩ	—
	D (±100)					10 Ω ... 1 MΩ	10 Ω ... 1 MΩ	
	L (±200)					—	4.99 Ω ... 10 Ω	1 Ω ... 10 Ω
SN 3D	D (±100)	2 W				10 Ω ... 1.5 MΩ	10 Ω ... 1.5 MΩ	10 Ω ... 1.5 MΩ
	L (±200)					—	—	5.1 Ω ... 10 Ω

\* For resistors operated in ambient temperature over +70°C, power rating shall be derated like shown in above „DERATING CURVE“. Rated voltage = √ Power rating x resistance value or max. working voltage, whichever is lower.

**PREFERRED TOLERANCE**

Contact our sales representatives before you use our products for applications including automobiles, medical equipment and aerospace equipment. Malfunction or failure of the products in such applications may cause loss of human life or serious damage.

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