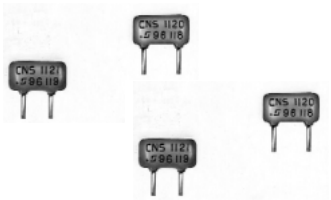
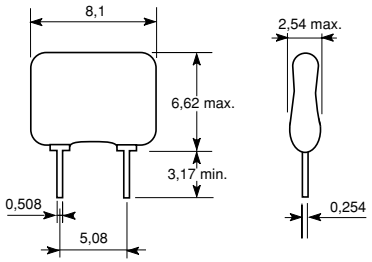
CNS < 020 021 high precision resistors

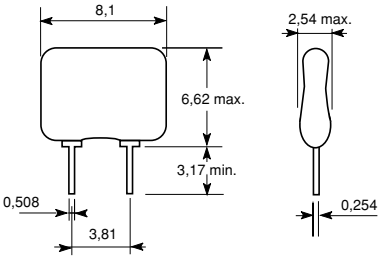


The models CNS 020 and CNS 021 resistors incorporate an ultrastable thin film element into the RCK02 form factor thereby extending the existing range capability.

CNS 020

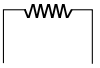


CNS 021



Dimensions in mm

ELECTRICAL DIAGRAM



4 Thin film products

SPECIFICATIONS

MECHANICAL

SUBSTRATE... alumina
RESISTIVE ELEMENT... passivated nichrome
TERMINAL LEADS... Sn Pb on Cu alloy
PROTECTION... epoxy coating

ELECTRICAL

OHMIC VALUE RANGE... 100 kΩ... 10 MΩ (lower on request)
RESISTANCE TOLERANCE... ± 0,01 % tightest
± 1% looset
TEMPERATURE COEFFICIENT OF RESISTANCE... ± 10 ppm/°C standard (–55°C, +125°C)
± 5 ppm/°C on request (0°C, +70°C)
POWER RATING... 0,25 W at +70°C
0,125 W at +125°C
derating 0 W at +155°C
MAXIMUM WORKING VOLTAGE... 300 V
(higher on request)

CLIMATIC

OPERATING TEMPERATURE RANGE... –55°C +155°C

MARKING

In clear : series, model, SFERNICE trademark and manufacturing code.
On back side : ohmic value (in Ω), tolerance (in %).

PERFORMANCE

TESTS	CONDITIONS	REQUIREMENTS		DRIFTS max.
		NFC 83-220 CECC 40 300	MIL R-55182E	
OVERLOAD	2,5 Un / 5 s U max. < 2 Un	± 0,01 %	± 0,05 %	0,01 %
TEMPERATURE CYCLING	–55°C/+155°C 5 cycles CEI 68-2-14 Test Na	± 0,01 %	± 0,05 %	0,01 %
TERMINAL STRENGTH	CEI 68-2-21 Test Ua (pulling) Ub (bending) Uc (twisting)	± 0,01 %	± 0,02 %	0,01 %
RESISTANCE TO SOLDER HEAT	+260°C / 10 s CEI 68-2-20A Test Tb (met 1A)	± 0,01 %	± 0,02 %	0,01 %
VIBRATION	10 Hz to 500 Hz 10 g. 6 hours met B4 CEI 68-2-6 Test Fc	± 0,01 %	± 0,02 %	0,01 %
CLIMATIC SEQUENCE	–55°C / +155°C 6 cycles 95% RH 85mbar CEI 68-2-61	± 0,05 % I. Resist. >10² MΩ	–	0,05 %
MOISTURE	56 days 95% RH + 40°C CEI 68-2-3	± 0,05 % I. Resist. >10² MΩ	–	0,02 %
LOAD LIFE	1000 hours Pn at 70°C 90' / 30'	± 0,05 %	± 0,05 %	0,05 %
HIGH TEMPERATURE STORAGE	1000 hours / +155°C CEI 68-2-2 Test B	± 0,05 %	–	0,05 %

ORDERING PROCEDURE

SERIES	MODEL	OHMIC VALUE	TOLERANCE
CNS	020	100 kΩ	±0,02%
	020 021		±0,01 % ±0,02 % ±0,05 % ±0,1 % ±1 %