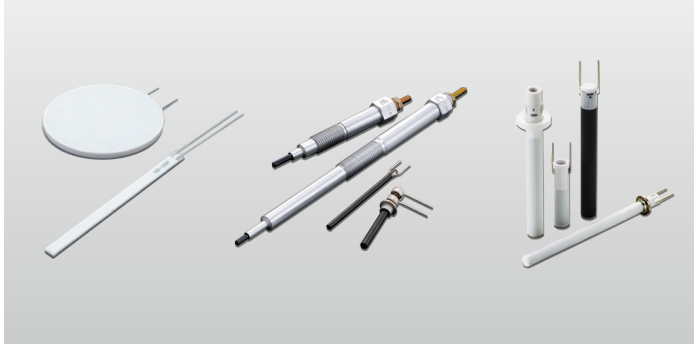




CERAMIC HEATERS FOR HIGH PERFORMANCE THERMAL MANAGEMENT



APPLICATIONS

- ▶ Automotive
- ▶ Industrial
- ▶ Medical
- ▶ Consumer electronics

FEATURES

- ▶ Compact / light weight / energy-conserving
- ▶ Superior thermal properties
- ▶ High reliability
- ▶ Automotive quality grade

MATERIAL DETAILS

- ▶ Element material: Alumina Oxide or Silicon Nitride
- ▶ Heating material: Tungsten base
- ▶ Different heating materials (TCR) available

THERMAL PROPERTIES

Item	Unit	Alumina Oxide	Silicon Nitride
Max. use temperature	°C max.	1000	1400
Operating temperature	°C max.	800	1300
Thermal conductivity	W/(m*K)	21	31
Specific heat	J/gK	1	1
Coefficient of linear thermal expansion	$\times 10^{-6}/^{\circ}\text{C}$	7.5	3.7

CONFIGURATION & DIMENSION

	Configuration	Dimension [mm]		
AL	Plate	Length	Width	Thickness
		160 × or φ160		0.3 ~ 5.4
	Rod / tube	Length	Diameter	
		120 max.	φ2 ~ φ50	
	200 max.	φ3 ~ φ20		
SN	Plate	Length	Width	Thickness
		30 ~ 100	4 ~ 50	1 ~ 20
	Rod	Length	Diameter	
		30 ~ 100	3 ~ 20	