KV-OHM

PROTOS ELECTROMECH PVT. LTD.

AN ISO 9001:2015 CERTIFIED COMPANY

CERAMIC ENCASED WIRE WOUND RESISTORS

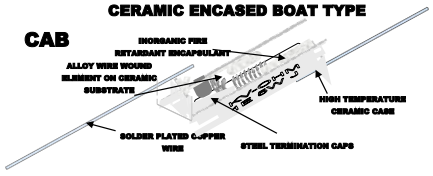
Series : **CAB**

Features:

- Fully welded construction.
- Flameproof inorganic construction.
- Enhanced heat dissipation.
- Operating temperature **-55°C to -275°C.**
- MO film element utilized for higher resistance values.
- Any special design on request.
- Lead (Pb)-free solder contacts.
- **RoHS** Compliant directive 2002/95/EC

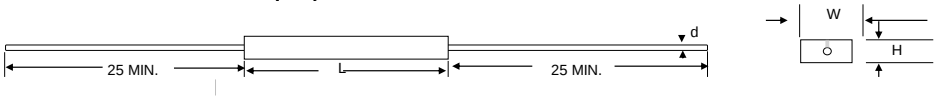
Construction :

CERAMIC ENCASED BOAT TYPE



Dimensions :

1.0 CERAMIC ENCASED BOAT TYPE (CAB)



Physical Data:

CERAMIC ENCASED BOAT TYPE (CA) :

TYPE	WATT. @ 70°C	TOL	DIMENSIONS (mm)				RESISTANCE RANGE		MAX. WORKING VOLTAGE
			L	W	H	d ± 0.05	WIRE WOUND	MO	
CA5	5W	±5%	22 ±1.5	10 ±1.0	8.5 ±1.0	0.75	0.1Ω ~ 100Ω	101Ω ~ 50KΩ	350 V

Note : 1.0 Working voltage is √ P X R where P is power & R is resistance in Ohms

2.0 Resistance range & tolerance other then specified is avilable on request.

3.0 Ressistor available with epoxy coating on request.

Marking:

The CA, CA-T & CR series / type, the nominal resistance & tolerance are marked on the resistor body using LEGEND marking

e.g KV-OHM

100E 5W F

Part Numbering Information:

Part Number : Type number, power rating, resistance value, tolerance, tcr.

CA5	5W	0.1Ohm	±5%	200 ppm/°C
Type	Power rating	Resistance value	Tolerance	TCR

Examples: PART NO. : CA5, 5W, 0.1Ohm, ±5%, 200ppm/°C

Performance Data (Procedure & Requirements):

TEST	PROCEDURE	REQUIREMENTS
Terminal strength	5 lbs. minimum	No visual damage R/R max.: ±(0.50% +0.05 Ω)
Solderability Test	16 hrs steam or 16 hrs. at 155°C 2 sec. ±0.5 sec. in solder at 260° ±5°C Using flux	>95% coverage covered (good tinning) & no damage
Resistance To Soldering Heat	at 350°C for 3 sec., 2.5mm from the body	R/R max.: ±(1.0% +0.05 Ω)
Temperature Cycling	30 minutes at -55°C & 30 minutes at 150°C Total 5 number of cycles.	No visual damage R/R max.: ±(1.0% +0.05 Ω)
Dry Heat Test	16 hrs at 150°C	R/R max.: ±(5.0% +0.05 Ω)
Cold Test	2 hrs at -55°C	R/R max.: ±(1.0% +0.05 Ω)
Short Time Overload	5 X Power nominal for 5 sec. @ 25°C	R/R max.: ±(1.0 +0.05 Ω)
Endurance @ 70°C	1000 hrs. load with Pn (power nominal) 1.5 hr. ON & 0.5 hr. OFF	No visual damage R/R max.: ±(5.0% +0.05 Ω)
Endurance @ Upper Category Temperature	1000 hrs. at 150°C with no load	No visual damage R/R max.: ±(5.0% +0.05 Ω)
Temperature Rise Test	Horizontally mounted, loaded with Pn	Hot spot temperature less than maximum body temperature
Damp Heat Steady State	56 days, 40°C; 90 to 95% Rh; dissipation < 0.01Pn	No visual damage R/R max.: ±(5.0% +0.05 Ω)
Temperature Coefficient	At 25/-55/25 °C & 25/150/25 °C	Within specified limits
Insulation Resistance	V- Block method for 1 minute duration At 500 V dc	> 10^4 MΩ
Voltage Proof Test	V- Block method for 1 minute duration At 500 V	No flash over or break down should observed

Derating Curve: