

Type Code

CPE20N-3.6A1-S2.2ER:

Challenge Piezo Element with spring 19.9(<20)mm diameter, Ni alloy basic disc – 3.6KHz resonant frequency, type A1(=without Feedback, super thin type) – Spring terminals, 2.2mm height, E(=1.5mm diameter gold plated spring, protective decal, visible glue fillet), RoHS compliance

Technical Terms

Type	CPE20N-3.6A1-S2.2ER	
Resonant Frequency	(Hz)	3600+/-500
Resonant Impedance	(ohm)	1500 max.
Capacitance at 1KHz	(pF)	20000+/-30%
Input Voltage	(Vp-p)	30
Operating Temperature	(°C)	-20~+60
Storage Temperature	(°C)	-30~+70
Weight	(g)	0.5

Special Requirement

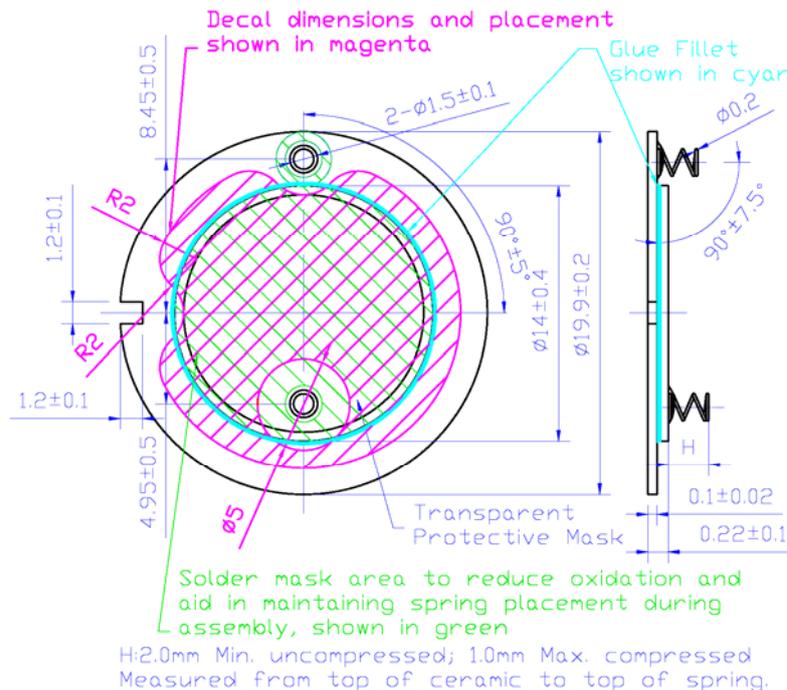
Contact Adhesion	Conical spring contacts shall be mounted such as to withstand a 3N pull force perpendicular and away from the metal disc and a 5N shear force parallel to the metal disc at any direction
Ceramic Adhesion	Ceramic disc should be securely adhered to metal disc to guarantee that (1) a glue fillet shall be visible and support the circumference of the ceramic disc; (2) Ceramic may crack but must not break loose of the metal disc or expose shards of broken material exceeding 1mm in width when bent around a metal rod of 25mm diameter with the decal removed.
Decal	A 0.05 – 0.10mm thick plastic decal (color option) backed with 3M Type 467 self adhesive shall be placed over the ceramic disc as shown in drawing below. Placement of Decal shall be within 1mm of center and no part of Decal shall touch any of springs and encroach on the index notch
Packing	Trays, springs side up.

Reliability

High Temperature	+70 °C±2 °C, 240hrs
Low Temperature	-30 °C±2 °C, 240hrs
Humidity	+60 °C±2 °C, 90~95%RH, 240hrs
Thermal Shock	-30 °C±2 °C, 1hr→+20 °C, 5min, →+70 °C±2 °C, 1hr→+20 °C, 5min, 5 cycles
Soak	+50 °C±2 °C, 90~95%RH, 16hrs followed by +30 °C±2 °C, 90~95%RH, 8hrs, 5 cycles
Shock	10g, 3 times 11ms by half sine wave shock for each 3 mutually perpendicular axis

Resonant Frequency change: within ±10% of the initial value; Capacitance change: within ±10% of the initial value (Recovery: 1 to 4 hrs of recovery under the standard condition after the removal from test chamber)

Dimensions (Unit:mm)



All specifications are subject to change without notice