

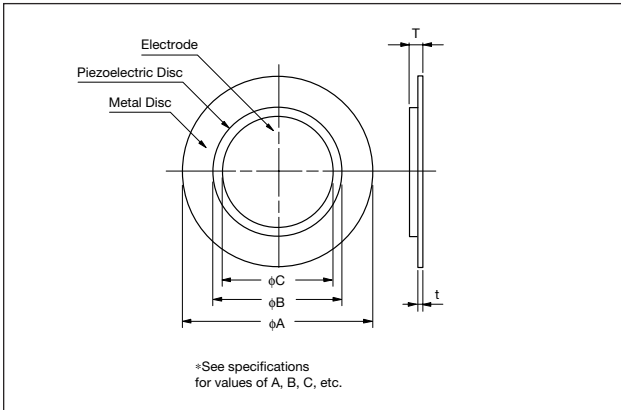
Piezo Ceramic Elements



KBS Series

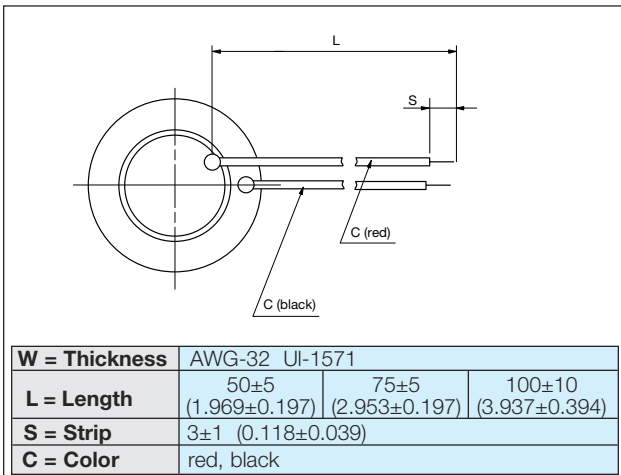


DIMENSIONS



STANDARD LEADS

millimeters (inches)



FEATURES

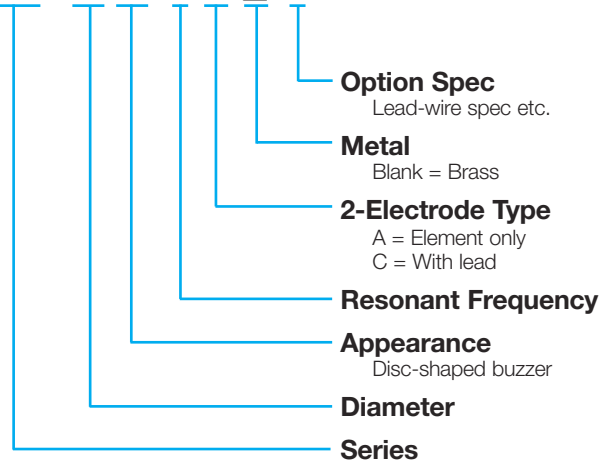
- Wide variety of tones by connecting to IC
- Low current consumption, thin and light design
- High reliability and no contact noise

APPLICATIONS

- Clocks, electronic calculators, pagers, cameras
- Equipment using microcontrollers (microwave ovens, TVs, stereos, automobiles, etc.)
- Telecommunications (facsimile machines, telephones)
- Electronic medical instruments

HOW TO ORDER

KBS - 20 DA - 7 A □ -1



SPECIFICATIONS

millimeters (inches)

Part Number	Resonant Frequency (kHz)	Resonant Impedance (Ω)	Static Capacitance (pF)	Dimensions					Metal Disc Material
				Metal Disc (øA)	Ceramic Disc (øB)	Electrode (øC)	Total Thickness (T)	Metal Disc Thickness (t)	
KBS-13DA-12A	12.0±1.2	700	5,000±30%	13.4±0.10 (0.528±0.004)	10.0±0.30 (0.394±0.012)	9.00 (0.354)	0.36±0.10 (0.014±0.004)	0.15±0.03 (0.006±0.001)	Brass
KBS-15DA-9A-2	10.5±3.0	600	8,000±30%	15.0±0.10 (0.591±0.004)	12.0±0.30 (0.472±0.012)	11.0 (0.433)	0.42±0.10 (0.017±0.004)	0.20±0.03 (0.008±0.001)	Brass
KBS-20DA-7A	6.6±1.0	300	10,000±30%	20.0±0.10 (0.787±0.004)	14.2±0.30 (0.559±0.012)	13.0 (0.512)	0.45±0.10 (0.018±0.004)	0.20±0.03 (0.008±0.001)	Brass
KBS-23DA-4A	4.0±1.0	600	12,000±30%	22.8±0.10 (0.898±0.004)	15.0±0.30 (0.591±0.012)	14.0 (0.551)	0.41±0.10 (0.016±0.004)	0.15±0.03 (0.006±0.001)	Brass
KBS-27DA-5A	4.6±0.5	200	20,000±30%	27.0±0.10 (1.063±0.004)	20.2±0.30 (0.795±0.012)	19.0 (0.748)	0.53±0.10 (0.021±0.004)	0.25±0.03 (0.010±0.001)	Brass
KBS-30DA-1A	1.4±0.5	500	*48,000±30%	30.0±0.10 (1.181±0.004)	20.2±0.30 (0.795±0.012)	19.0 (0.748)	0.23±0.10 (0.009±0.004)	0.10±0.03 (0.004±0.001)	Brass
KBS-35DA-3A	2.9±0.5	200	30,000±30%	35.0±0.10 (1.378±0.004)	25.0±0.30 (0.984±0.012)	23.5 (0.925)	0.53±0.10 (0.021±0.004)	0.25±0.03 (0.010±0.001)	Brass

*Measured at 120Hz, all others at 1kHz

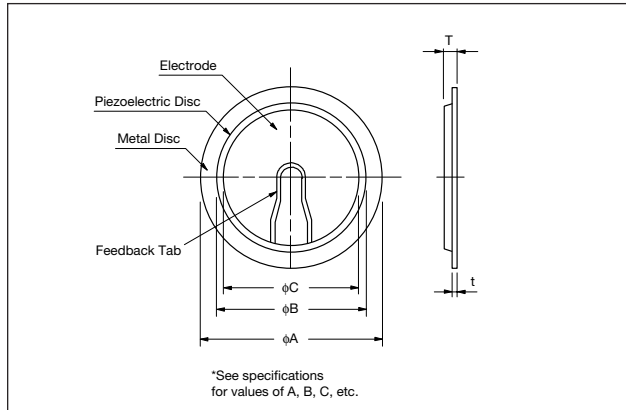
Piezo Ceramic Elements



KBS Series

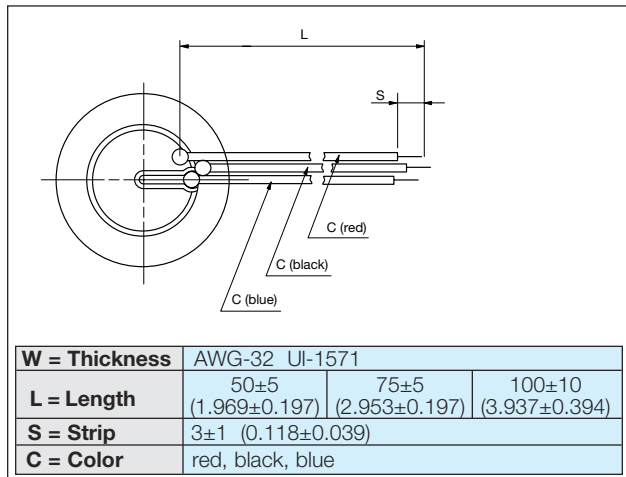


DIMENSIONS



STANDARD LEADS

millimeters (inches)



SPECIFICATIONS (G TYPE)

millimeters (inches)

Part Number	Resonant Frequency (kHz)	Resonant Impedance (Ω)	Static Capacitance (pF)	Dimensions				Metal Disc Thickness (t)	Metal Disc Material
				Metal Disc (ϕA)	Ceramic Disc (ϕB)	Electrode (ϕC)	Total Thickness (T)		
KBS-27DA-5G	4.6±0.5	200	16,000±30%	27.0±0.10 (1.063±0.004)	20.2±0.30 (0.795±0.012)	19.0 (0.748)	0.53±0.10 (0.021±0.004)	0.25±0.03 (0.010±0.001)	Brass
KBS-35DA-3G	2.9±0.5	200	25,000±30%	35.0±0.10 (1.378±0.004)	25.0±0.30 (0.984±0.012)	23.6 (0.929)	0.53±0.10 (0.021±0.004)	0.25±0.03 (0.010±0.001)	Brass

FEATURES

- High sound pressure level and clear sound by connecting to a self oscillating circuit
- Thin and light design
- High reliability and no contact noise

APPLICATIONS

- Smoke detectors, security alarms and other warning devices
- Pagers, electronic calculators, alarm signals
- Telephones

HOW TO ORDER

KBS - 35 DA - 3 G □ -3

