Not Recommended for New Design

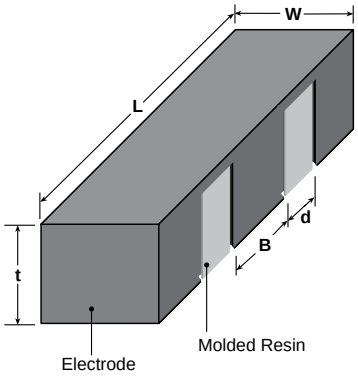
KT11835

transponder coil (Rx)

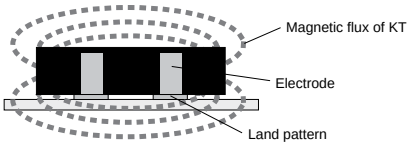
features

- Transponder coil is arranged with electrode in the long side of the part, and covered with molding resin
- Excellent high Q and high sensitivity, because neither the electrode nor the land pattern disturb the coil flux
- Strong resistance to vibration, shock and substrate bend test by 4 electrode terminals structure and the molded resin
- Small inductance change to environmental temperature change
- Marking: Black body color
- Products meet EU RoHS requirements
- AEC-Q200 Qualified

dimensions and construction



Type	Dimensions inches (mm)				
	B	d	L	W	t
KT	.134 Typ. (3.4 Typ.)	.059 Typ. (1.5 Typ.)	.465±.008 (11.8±0.2)	.142±.008 (3.6±0.2)	.118 Max. (3.0 Max.)



ordering information

KT	11835	T	TEG	722	J
Product Code	Style	Terminal Surface Material	Packaging	Nominal Inductance	Tolerance
	L x W x H (mm) 11.8 x 3.6 x 3.0	T: Sn	TEG: plastic embossed 2,500 pieces/reel	3 digits: 722: 7.2mH 123: 12mH	G: ±2% H: ±3% J: ±5%

For further information on packaging, please refer to Appendix A.

ratings

Type	Nominal Inductance (mH)	Inductance Tolerance	Unload Quality Factor Min.	L, Q Measuring Frequency (kHz)	Self Resonant Frequency (kHz) Min.	DC Resistance (Ω)Max.	Allowable DC Current (mA) Max.	Sensitivity (mV/uT) Typ.
KT11835TTEG242☐	2.4	G: ±2% H: ±3% J: ±5%	32	125	700	32	30	28
KT11835TTEG402☐	4.0		36		600	45	25	35
KT11835TTEG502☐	5.0		32		800	75	22	40
KT11835TTEG722☐	7.2		40		750	92	15	55
KT11835TTEG123☐	12		45		500	119	12	75

The code for inductance tolerance (G, H, J) enters ☐

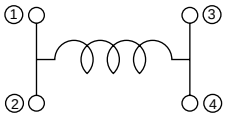
Any other inductance under 12mH is available

Operating Temperature Range: -40°C - +125°C (Self-heating is included). That the operating temperature upper limit temperature of the coil winding portions (ambient temperature + self-heating) is (+125°C) or less.

4/08/16

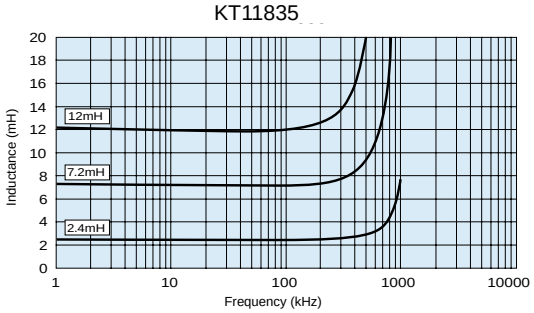
environmental applications

Circuit Construction

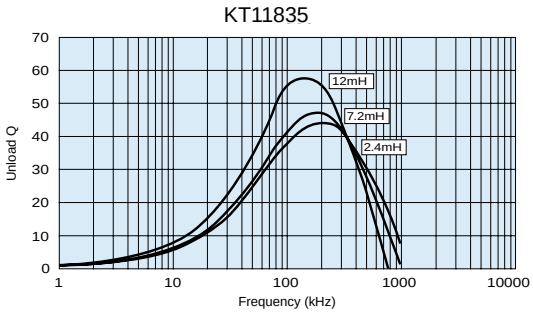


Characteristics Test equipment: Agilent 4294A impedance analyzer

L−Frequency Characteristics

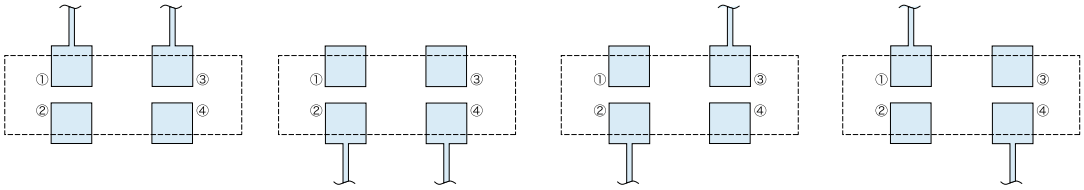


Q−Frequency Characteristics

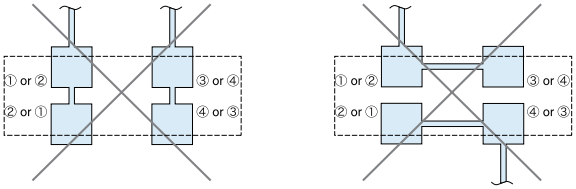


Wiring Diagram of Solder Pad

Recommended wiring example



Non-recommended wiring example



Please avoid the following wiring because it leads to decrease of L and Q.

Connection between 1 and 2, and/or 3 and 4.

Performance Characteristics

Test Items	Performance Requirement Maximum L/L		Test Methods
	Limit	Typical	
Resistance to Soldering Heat	±2% No significant abnormality in appearance	±1%	260°C±5°C, 10 seconds ±1second
Rapid Change of Temperature	±2% No significant abnormality in appearance	±1%	−40°C (30min.) /+125°C (30min.), 100 cycles
Low Temperature Exposure	±2% No significant abnormality in appearance	±1%	−40°C±2°C, 1000 hours
High Temperature Exposure	±2% No significant abnormality in appearance	±1%	+125°C±2°C, 1000 hours
Moisture Endurance	±2% No significant abnormality in appearance	±1%	+60°C±2°C, 90 ~ 95%RH, 1000 hours
Temperature Characteristics	±3% No significant abnormality in appearance	±2%	+20°C→-40°C, +20→+125°C