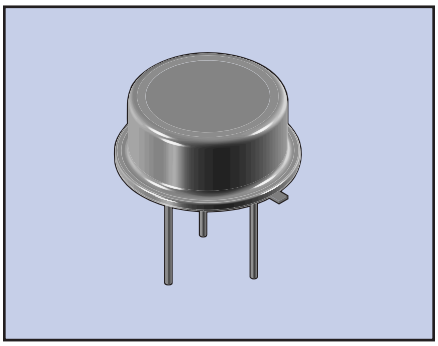
ECS-DR2 SERIES TWO-PORT 180˚ SAW RESONATOR



The ECS-DR2 Series are 2-port 180˚ SAW (Surface Acoustic Wave) resonators in a thru-hole TO39-3A package. They offer a fundamental mode, quartz frequency and are ideal for remote control and wireless security transmitters.

FEATURES

- Quartz Stability
- 180˚ nominal insertion phase at resonance
- Ideal for wireless security and remote control applications
- PbFree/RoHS Compliant

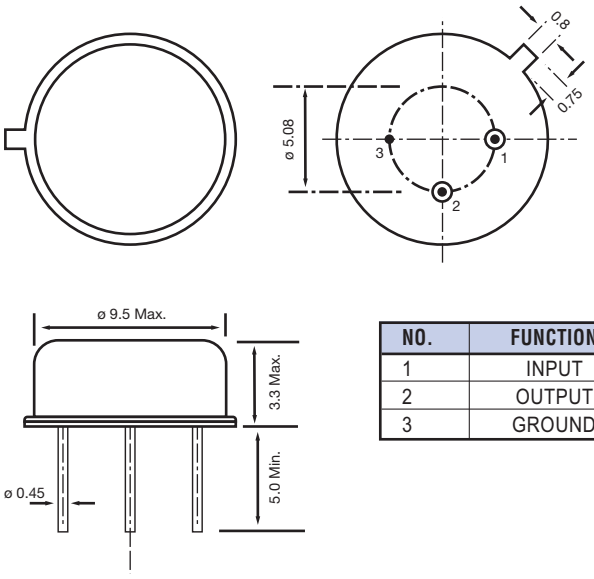
PART NUMBERING GUIDE

ECS SERIES		FREQUENCY (433.92 MHz)
ECS-DR2	–	4339

OPERATING CONDITIONS/ELECTRICAL CHARACTERISTICS

PARAMETERS	SYMBOL/NOTES	DR2-3100	DR2-3150	DR2-4073	DR2-4180	DR2-4339	UNITS
CENTER FREQUENCY	F_O	310.0 ±0.1	315.0 ±0.075	407.3 ±0.1	418.0 ±0.075	433.92 ±0.075	MHz
INSERTION LOSS	IL	10.0	10.0	10.0	10.0	10.0	dB Max.
UNLOADED Q		12,000	12,000	12,000	12,000	12,000	
50 Ohms LOADED Q		7,000	7,000	5,500	5,500	5,500	
TURNOVER TEMPERATURE		15/45	15/45	15/45	15/45	15/45	˚C
FREQ. TEMP. COEFFICIENT	FTC	0.037	0.037	0.037	0.037	0.037	ppm/˚C
FREQUENCY AGING		< ±10	< ±10	< ±10	< ±10	< ±10	ppm/year
DC INSULATION RESISTANCE	Between any 2 pins	>1	>1	>1	>1	>1	MΩ
MAX. DC VOLTAGE	Between any 2 pins	10	10	10	10	30	VDC
PIN 1-TO-2 STATIC CAPACITANCE		1.4 ±0.3	1.4 ±0.3	1.4 ±0.3	1.4 ±0.3	1.3 ±0.3	pF
OPERATING TEMPERATURE	T_{OPR}	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	˚C
STORAGE TEMPERATURE	T_{STG}	-40 to +85	-40 to +85	-40 to +85	-40 to +85	-40 to +85	˚C
CASE		TO-39-3A	TO-39-3A	TO-39-3A	TO-39-3A	TO-39-3A	

PACKAGE DIMENSIONS (mm)



NO.	FUNCTION
1	INPUT
2	OUTPUT
3	GROUND

Figure 1) ECS-DR2 - Top, Side and Bottom views

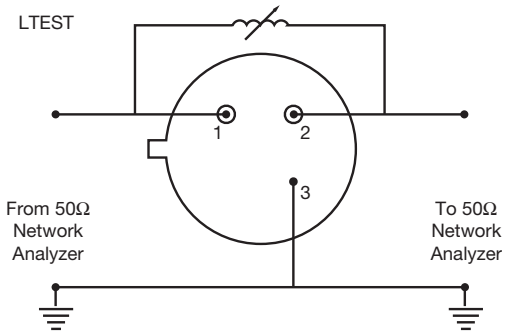


Figure 2) Test Circuit