

The ECS-DR1 Series are 1-port 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.

[Request a Sample](#)

OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS



- Quartz stability
- Ideal for wireless security and remote control applications
- PbFree/RoHS Compliant

Parameters	Symbol/Notes	DR1-3100	DR1-3150	DR1-3180	DR1-4180	DR1-4339	Units
Center Frequency	F_o	310.0 \pm 0.1	315.0 \pm 0.1	318.0 \pm 0.075	418.0 \pm 0.075	433.92 \pm 0.075	MHz
Insertion Loss	IL	2.0	2.0	2.0	2.0	2.0	dB Max.
Unloaded Q		13,900	13,900	11,000	13,900	13,900	
50 Ohms Loaded Q		2,100	2,100	2,100	2,100	2,100	
Turnover Temperature		10/40	10/40	10/40	5/40	10/40	°C
Freq. Temp. Coefficient	FTC	0.037	0.037	0.037	0.037	0.037	ppm/°C
Frequency Aging		< \pm 10	< \pm 10	< \pm 10	< \pm 10	< \pm 10	ppm/year
DC Insulation Resistance	Between any 2 pins	>1	>1	>1	>1	>1	M Ω
Max. DC Voltage	Between any 2 pins	10	10	10	10	30	VDC
Pin 1-to-2 Static Capacitance		2.5 \pm 0.3	2.5 \pm 0.3	2.3 \pm 0.3	2.3 \pm 0.3	2.0 \pm 0.3	pF
Transducer Static Capacitance		2.2	2.2	2.2	1.7	1.7	pF
Operating Temperature	T_{OPR}	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	°C
Storage Temperature	T_{STG}	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	-40 ~ +85	°C
Case		TO-39-3A	TO-39-3A	TO-39-3A	TO-39-3A	TO-39-3A	

Part Numbering Guide: ECS-DR1-3180

ECS	-	Series	-	Frequency
ECS		DR1		3180 = 318 MHz

Package Dimensions (mm)

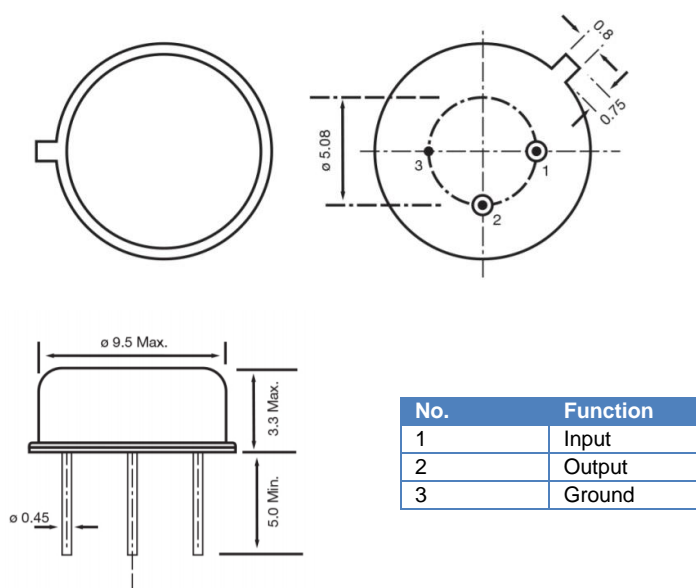


Figure 1) Top, Side, and Bottom Views

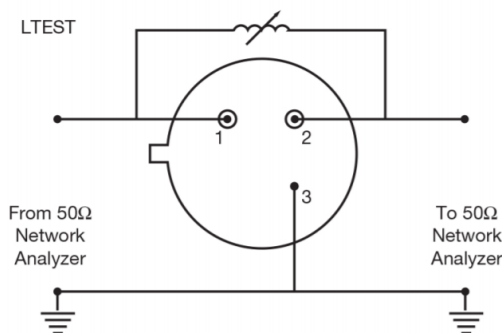


Figure 2) Test Circuit