

# SMD ONE PORT 303.825 MHz SAW RESONATOR

ASR303.825E



**RoHS**  
Compliant



5 x 5 x 1.5mm

## STANDARD SPECIFICATIONS:

CHARACTERISTICS		UNIT	MIN.	TYP.	MAX.
Center Frequency $F_0$		MHz	303.75	303.825	303.9
Tolerance from $F_0$		KHz		$\pm 75$	
Insertion Loss		dB	-	1.3	2.5
Quality Factor	Unloaded	-		12,000	
	50 $\Omega$ loaded			2,000	
Temperature Stability	Turnover Temperature	$^{\circ}\text{C}$		39.0	
	Turnover Frequency	KHz		$F_0$	
	Freq. Temp. Coefficient	ppm/ $^{\circ}\text{C}^2$		0.032	
Frequency Aging		ppm/year		$< \pm 10$	
DC Insulation Resistance		M $\Omega$	1.0		
RF Equivalent RLC Model	Motional Resistance $R_1$	$\Omega$		12	19
	Motional Inductance $L_1$	$\mu\text{H}$		94.0	
	Motional Capacitance $C_1$	fF		2.9	
	Shunt Capacitance $C_0$	pF	2.7	3.0	3.3
Operating temp.		$^{\circ}\text{C}$	$-40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$		
Storage temp.		$^{\circ}\text{C}$	$-45^{\circ}\text{C}$ to $+85^{\circ}\text{C}$		
Max. Rating	DC voltage	V	$\pm 10$		
RF Power Dissipation		dBm	0		

Data measured with: Source Impedance:  $Z_s=50\Omega$ , Load Impedance:  $Z_L=50\Omega$ ,  $T_A=25^{\circ}\text{C}$

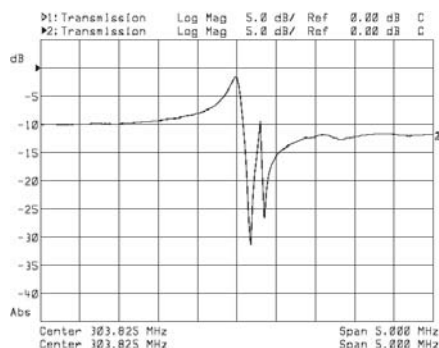
Electrostatic Sensitive Device. Handle with precaution.

## MARKING:

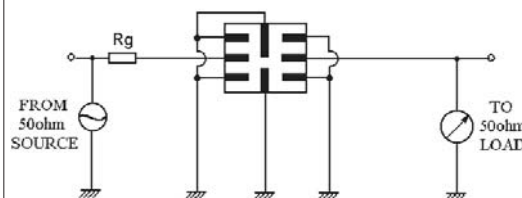
- 303.82 (303.825 Frequency in MHz)
- AR ZYX (ZY: Date code Z for month from A to L; Y for year, i.e. 4 for 2004  
X: Traceability code)

PIN NO.	CONNECTIONS
1	Input GND
2	Input
5	Output GND
6	Output
3,7	To be GNDed
4,8	Case GND

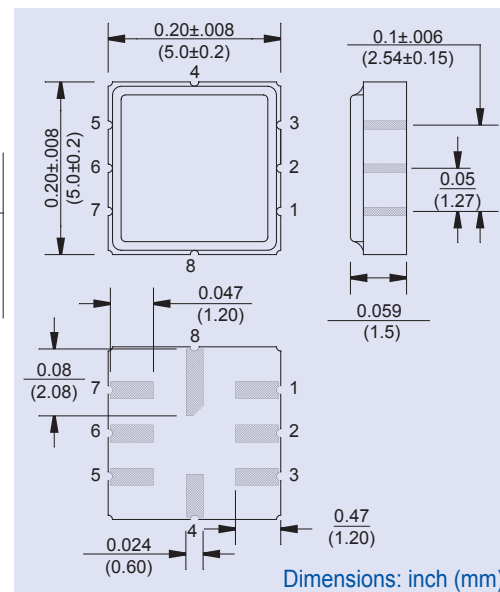
## FREQUENCY RESPONSE:



## TEST CIRCUIT:



## OUTLINE DRAWING:



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