



MAIN FEATURE

- Thru Hole Type, 2 Pins
- Low Cost and short lead time
- Varies with Frequency Range
- Compatible to Murata CSB Series



L7.0*W3.5*H9.0mm
Varies with Frequency Range

APPLICATION

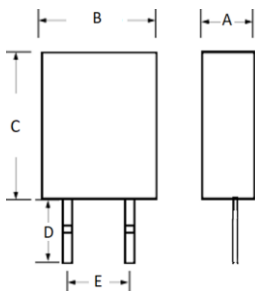
- Communication and more

STANDARD SPECIFICATION

Parameter	Value			Unit	Condition
	Min.	Type	Max.		
Frequency Range	190	455	1250	KHz	see p/n guide or Specify
Frequency Accuracy		±1.0		KHz	@25 °C , see table 1
Operating Temperature Range	-20	-	+85	°C	
Storage Temperature Range	-35	-	+85	°C	
Capacitance (C1/C2)	-	330/470	-	pF	330/470: 190~249KHz
		-	-		220/470: 250~374KHz; 120/470: 275~429KHz
	-	100	-		430~1250KHz
Temperature Coefficient	-	±0.3	-	%	Oscillation Freq. drift @-20 °C ~+85 °C
Resonant Impedance	-	-	100	ohm	See table 1
Aging per year*	-	-	±0.5	%	From initial value
Withstanding Voltage		100		V	DC, 5s Max.
Insulation Resistance Ri	100			MΩ	10V, 1min
Rating Voltage UR		50		V	DC
		15		V	p-p AC
IC	1/6CD4069UBE				

* Parts shall be left in a chamber of +85 °C ±2°C for 1000 hours, then measured after leaving in natural condition for 1 hours.

DIMENSION (mm)



#1 In/Output
#2 Output/Input

Table 1

Frequency Range (KHz)	Dimension (+/-0.3mm)					ESR (ohm) Max.	Frequency Tolerance @25 °C
	A	B	C	D	E		
190~249	3.8	13.5	14.7	8.0	10.0	20	+/-1.0KHz
250~374	3.8	11.0	12.2	7.0	7.7	20	
375~449	3.6	7.9	9.3	6.0	5.0	20	+/-2.0KHz
450~699	3.5	7.0	9.0	5.0	5.0	40	
700~1250	2.2	5.0	6.0	3.5	2.5	100	+/-0.5%

PART NUMBER GUIDE

Example: TGS CRB 455 E B LF XX

Part Number and Part Code Structure

TGS	CR	B	455	E	B	LF	XX
1	2	3	4	5	6	7	8

- 1) TGS: Company Code
- 2) CR: Ceramic Resonator
- 3) B: 2 Pins
- 4) 455: Frequency range; 455: 455KHz or specify
- 5) E: Grade for different frequency range
- 6) B: Packed in Bulk
- 7) LF: RoHS Compliant
- 8) XX: Internal Control Code; Blank: N/A