

**Features**

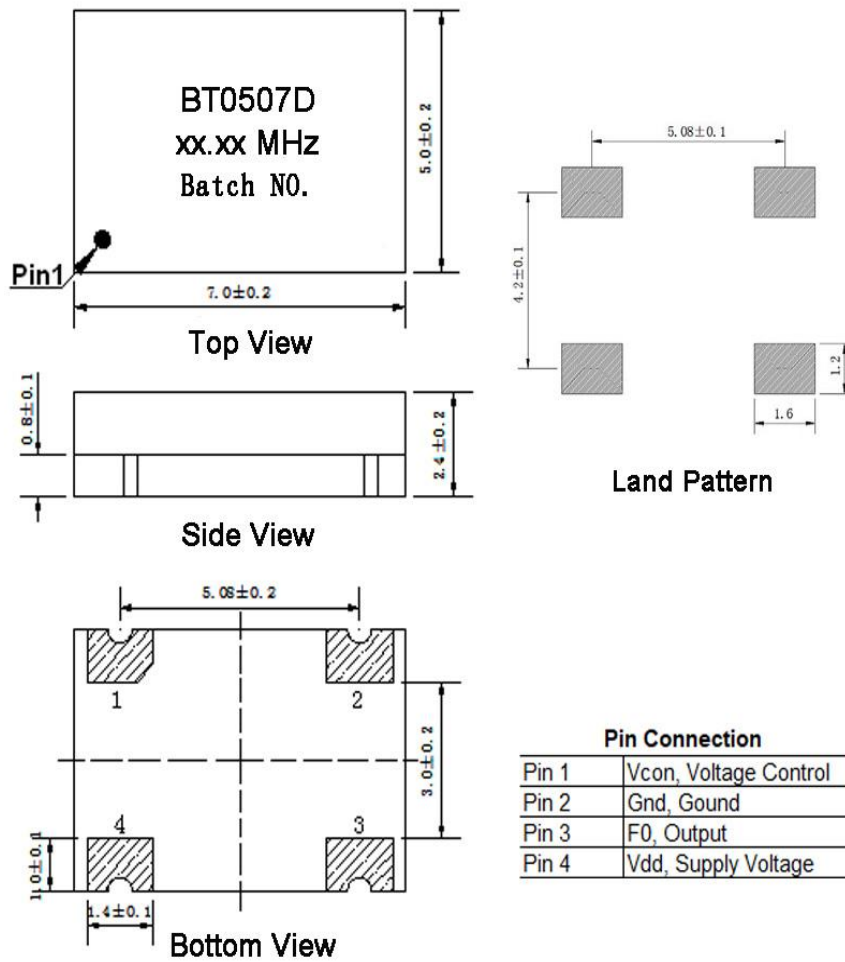
- Ultra Stable
- Low Phase Noise Available
- SMD Package (7.0x5.0mm)
- Provide Stratum III Level Frequency Stability

**Applications**

- Base Stations
- Instrumentations
- Synthesizer
- SDH/SONET
- Medical Electronics

**BT0507D(L) Specifications**

Parameter	Value			Unit	Conditions	
	Min.	Typ.	Max.			
Supply Voltage	-	3.3	-	V		
	-	5	-	V		
Supply Current	-	-	15	mA		
Frequency Range	10~ 50			MHz		
Nominal Frequency	10, 12.8, 20, 25, 26, 30.72, 40, 50			MHz		
Initial Frequency Tolerance	-	-	±1.0	ppm	At shipment, nominal EFC, +25°C	
Freq. Stability Vs. Temp.	±0.28	-	±2	ppm	-40°C~+85°C	
CMOS	V <sub>OH</sub>	2.4	-	V	CMOS Output, Load=15pf	
	V <sub>OL</sub>	-	-	0.4	V	CMOS Output, Load=15pf
	Duty Cycle	45	-	55	%	(V <sub>OH</sub> - V <sub>OL</sub> )/2
	Rise/Fall Edge	-	-	6	ns	CMOS Output, Load=15pf
	Load	-	-	10	pf	
Clipped Sine Wave	Output Level	0.8	-	Vp-p		
	Load	10KΩ//10pF				
Sine Wave	Output Level	0	-	-	dBm	
	Harmonics	-	-	-30	dBc	
	Spurious	-	-	-70	dBc	
	Load	-	50	-	Ω	90%~10% Vdd
Supply Sensitivity	-	-	±0.2	ppm	Vcc±5%	
Load Sensitivity	-	-	±0.2		Load±10%	
Aging/ Day	-	-	±0.02			
Aging/ First Year	-	-	±1.0			
SSB Phase Noise @40MHz	-	-	-90	dBc/Hz	Offset 10Hz	
	-	-	-115		Offset 100Hz	
	-145	-	-135		Offset 1kHz	
	-	-	-145		Offset 10kHz	
	-	-	-150		Offset 100kHz	
Control Voltage Range	1.65± 1.65			V	Vs=3.3Vdc	
	2.5 ± 2.5			V	Vs=5.0Vdc	
Frequency Turning Range	±8	-	-	ppm		
Tuning Slope	Positive					
Non-linearity	-	-	10	%		
Input Impedance	100	-	-	KΩ		

**Outline Dimension & Pin Connections**
**Package D**

**Environmental Conditions**

 Operating Temperature Range     $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ 

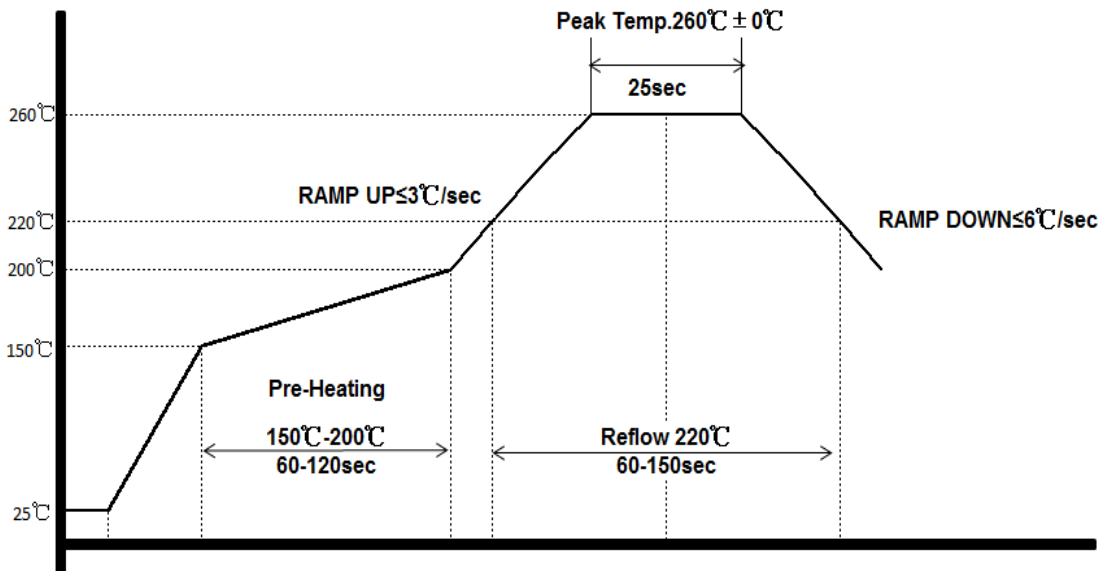
 Storage Temperature Range        $-55^{\circ}\text{C} \sim +125^{\circ}\text{C}$ 
**Maximum Ratings**

Parameter	Symbol	Rating
Supply Voltage	Vdd	-0.5V / 6V
Control Voltage	Vcon	0V / 3V
ESD, HBM/CDM/MM		4KV/ 2KV/ 200V

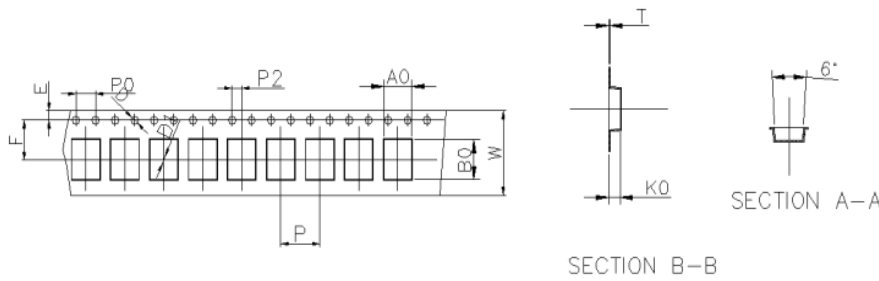
**Reliability**

Parameter	Condition
Temperature Stress Test	IEC60068, GJB360B
Mechanical Stress Test	IEC60068, GJB360B
EMC Test (ESD)	IEC61000, JESD22
Solderability	EIA/JESD22-B102-C
Contact Pads	Gold over Nickel
RoHS	RoHS Directive 2011/65/EU Annex II Recasting 2002/95/EC

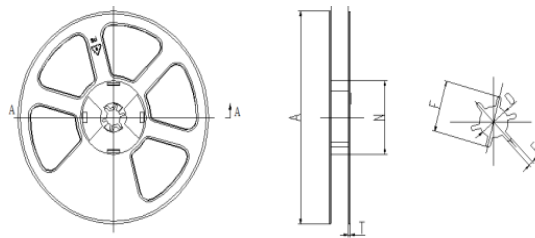
IR Reflow Profile



Tape & Reel



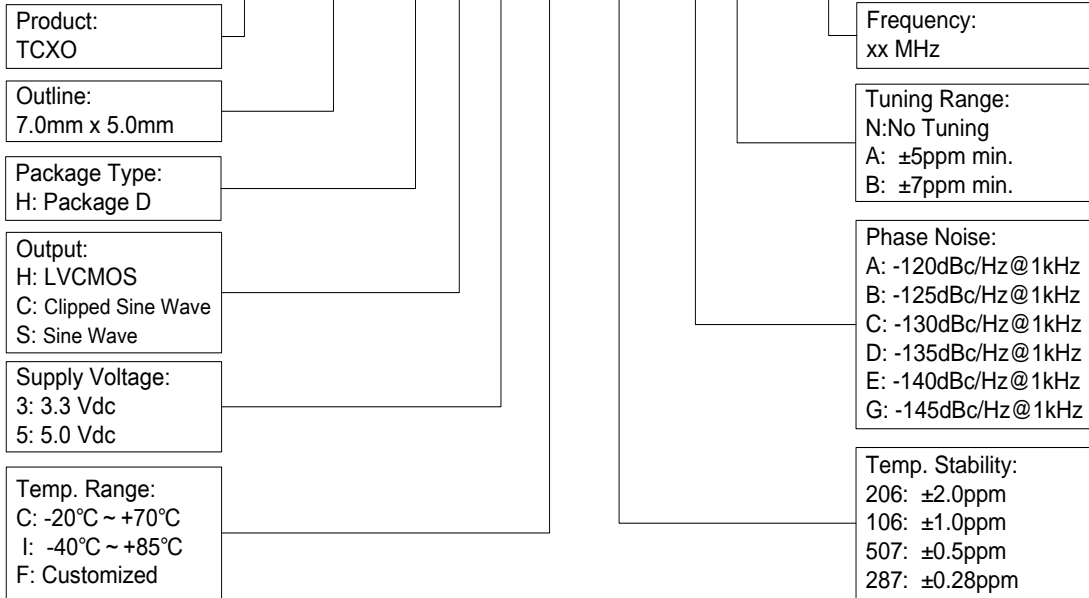
ITEM	W	A0	B0	K0	P	F	E	D	P0	P2	t	7'	
DIM	16.0	5.7	7.6	2.4	8	7.5	1.75	1.50	4.00	2.00	0.30	L/R	QTY/PCS
TOLE	+0.30 -0.30	+0.15 -0.15	+0.15 -0.15	+0.15 -0.15	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.00	+0.10 -0.10	+0.10 -0.10	+0.05 -0.05	5M/R	500 PCS



Item	W	A	N	T	E	F	D
Size	16.4	178	62	1.8	2	21.8	13.5
TOL	±0.3	±0.5	±0.4	±0.2	±0.5	±0.8	±0.3

**Ordering Guide**

**BT 0507 D X X X XXX X X XX.XX**



**Example:** BT0507DH3C287CN20

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