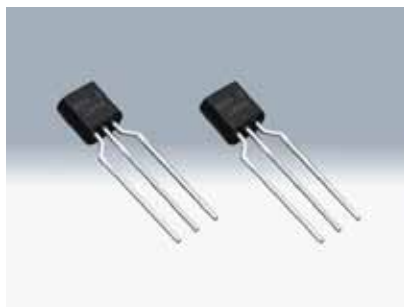


Crystal Oscillators

DLO555MB



Features

- Small crystal oscillator in TO92 package
- No PLL, No multiplier in oscillation circuit (The divider circuit, some cases be used)
- High-speed oscillation start up time(1ms)
- Tape and ammo-pack packing for automatic insertion machine

Type D L O 5 5 5 M B

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① D : Corporate name (Daishinku)
- ② L : Lead type
- ③ O : SPXO
- ④, ⑤ 5 : Dimensions
- ⑥ 5 : 3 terminals
- ⑦ M : Mold type
- ⑧ B : Vcc : 5V, CMOS Level Output



Applications

- Substitution products for DOC-49S
- Industrial equipment

Absolute Maximum Ratings

Item	Legend	Spec.	Unit
Supply Voltage	V _{cc}	-0.6 to +6.0	V
Output Pin Voltage	V _{OUT}	-0.6 to V _{cc} +0.6	V
Output Pin Current	I _{OUT}	10	mA
Storage Temperature Range	T _{str}	-40 to +105	°C

Recommended Operating Conditions

Item	Legend	min.	typ.	max.	Unit
Supply Voltage	V _{cc}	1.6	5.0	5.5	V
Load Condition f ₀ >48MHz	L _{CMOS}	-	-	15	pF
Load Condition f ₀ ≤48MHz	L _{CMOS}	-	-	30	pF
Operating Temperature Range	T _{opr}	-10	-	+85	°C

Standard Specification

Item	Legend	Spec.			Unit	Condition
		min.	typ.	max.		
Output Frequency Range	f ₀	0.75	-	54	MHz	L _{CMOS} : 15pF
		0.75	-	48		L _{CMOS} : 30pF
Frequency Tolerance	-	-	-	±100 ±50	×10 ⁻⁶	T _{opr} = -10 to 85°C V _{cc} =1.6 to 5.5V
Aging	-	-	-	±5	×10 ⁻⁶ /year	
Current Consumption	I _{cc}	-	-	8	mA	No load
Symmetry	SYM	45	-	55	%	50% V _{cc} level
0 Level Output Voltage	V _{OL}	-	-	V _{cc} ×0.1	V	I _{OL} =4mA
1 Level Output Voltage	V _{OH}	V _{cc} ×0.9	-	-	V	I _{OH} = -4mA
Rise and Fall Time	tr,tf	-	1.8	3.8	ns	L _{CMOS} : 15pF 20 to 80% V _{cc} level
		-	3.8	7.5		L _{CMOS} : 30pF 20 to 80% V _{cc} level
Start Up Time	T _{start}	-	-	1	ms	t=0 at 90% V _{cc}
Phase Noise	-	-	-145	-	dBc/Hz	Offset 1kHz
		-	-158	-		Offset 100kHz
Period Jitter (1)	t _{RMS}	-	2.4	-	ps	σ
	t _{p-p}	-	20	-		Peak to peak
Total Jitter (1)	t _{TL}	-	34	-	ps	tDJ+n×tRJ n=14.2(BER=1×10 ⁻¹²) (2)
Phase Jitter (3)	t _{pj}	-	-	1	ps	10MHz≤f ₀ <40MHz f ₀ offset12kHz to 5MHz
		-	-	1		40MHz≤f ₀ ≤60MHz f ₀ offset12kHz to 20MHz

- (1) Measured WAVECREST DTS-2075
 (2) tDJ : Deterministic jitter tRJ : Random jitter
 (3) Measured Agilent Technologies E5052B
 (4) Moisture prevention packing is unnecessary.
 Moisture Sensitivity Level : Level 1 (IPC/JEDEC J-STD-033)

Consult our sales representative for other specifications.

Dimensions

[mm]

