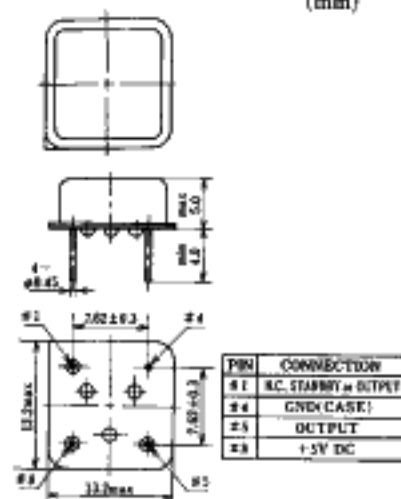


FREQUENCY RANGE VS. OUTPUT LEVEL

Model	Frequency		Output Level								
	kHz	MHz	28	3	4	7	22	25	70	100	
TD1100 series DIP 14pin					TD1100 TTL						
1200 series DIP 14pin	1220 TTL/C-MOS		1250 TTL/C-MOS				1230 1240 C-MOS TTL		1270 TTL		
	1320 TTL/C-MOS		1350 TTL/C-MOS				1330 1340 C-MOS TTL				
1300 series DIP 8pin											
1400 series DIP 8pin			1420 C-MOS		1430 1440 C-MOS TTL						

1300-1400 series

(mm)



TD1100-1200 series

TD1100 SERIES

Model	TD1100	
Feature		
Output Level	TTL	
Frequency Range	3.9~70MHz	
Frequency Stability ($\times 10^{-4}$)	See Table 1	
Operating Temp. Range(°C)		
Current	TYP	20~30mA
	MAX	50mA
$V_{OL}^{MAX}/V_{OH}^{MIN}$	See Table 2	
T_r^{MAX}/T_f^{MAX}	See Table 3	
Duty Cycle (%)	40~60	
Fan out (gate)	TTL	10
Stand-by Function	No	
Dual Output	Option	No

Table 1

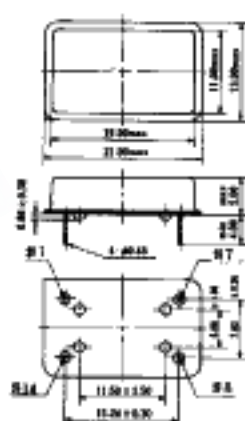
Model	Frequency Stability ($\times 10^{-4}$)	Operating Temp. Range(°C)
TD1100C	± 100	-20~+70
TD1114C	± 500	-20~+70
TD1115C	± 1000	-20~+70
TD1145C	± 50	0~+70
TD1158C	± 100	-10~+35

Table 2

Frequency Range	V_{OL}	V_{OH}
<40 MHz	0.4V ^{MAX}	2.4V ^{MIN}
≥ 40 MHz	0.5V ^{MAX}	2.4V ^{MIN}

Table 3

Frequency Range	T_r	T_f
~ 5 MHz	15 ns	15 ns
5 ~ 22 MHz	10 ns	10 ns
22 ~ 30 MHz	7 ns	7 ns
30 ~ 70 MHz	5 ns	5 ns



PIN	Connection	
	TD1100 Series	1200 Series
#1	NC	NC or Stand-by or Output (Dual)
#7	Ground to Case	Ground to Case
#8	OUTPUT	OUTPUT
#14	+5VDC	+5VDC

1200/1300/1400 SERIES

Model	1220 (1221~1229)		1230 (1230~1239)		1240 (1240~1249)		1250 (1251~1259)		1270 (1271~1272)		1420 (1429)		1430 (1431~1437)		1440 (1441~1447)	
	1320 (1321~1329)		1330 (1330~1339)		1340 (1340~1349)		1350 (1351~1359)		-		-		-			
Feature	C-MOS		C-MOS		-		C-MOS		-		C-MOS		C-MOS		-	
Output Level	TTL		-		TTL		TTL		TTL		-		-		TTL	
Frequency Range	28kHz~22MHz		22~70MHz		22~70MHz		3~25MHz		70~100MHz		7~22MHz		22~70MHz		22~70MHz	
Frequency Stability ($\times 10^{-4}$)	± 50	± 100	± 50	± 100	± 50	± 100	± 50	± 100	± 200	± 100	± 100	± 100	± 100	± 100	± 100	± 100
Operating Temp. Range(°C)	0~+70	-20~+70	0~+70	-20~+70	0~+70	-20~+70	0~+70	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70
Current	TYP	5mA	13~22mA	13~22mA	11mA	25~35mA	10~30mA	40~80mA	35~80mA							
	MAX	10mA	25~40mA	25~40mA	25mA	50mA	40mA	50~85mA	45~85mA							
$V_{OL}^{MAX}/V_{OH}^{MIN}$	0.5V/ V_{DD} -0.5V		0.5V/ V_{DD} -0.5V		0.4/2.4V or 0.5/2.4V		0.5V/ V_{DD} -0.5V		0.5/2.4V		0.5V/ V_{DD} -0.5V		0.5V/ V_{DD} -0.5V		0.4/2.4V	
T_r^{MAX}/T_f^{MAX}	10/10ns		5/5 ns		5/5 ns		7/7 ns		5/5 ns		6/6 ns		6/6 ns		3.5/3.5ns	
Duty Cycle (%)	40~60 for 1229 and 1329		40~60		40~60		45~55 at 1/2V _{DD} 40~60 at 1.4V		40~60		45~55		45~55		40~60	
Fan out (gate)	TTL	2	5	5	5	5	(AS or F) 5	$C_L = 150pF^{MAX}$	$C_L = 150pF^{MAX}$	5						
Stand-by Function	Yes		Yes		Yes		Yes		Yes		Yes		Yes		Yes	
Dual Output	Option	1229, 1329	No		No		No		No		No		No		No	