

TM58P10 DC & AC characteristics compare

Tenx1 : TM58P10 test value (max.)
 Tenx2 : TM58P10 Spec. value
 PIC : Microchip PIC16C56 (industrial)
 Elan : EM78P156
 Myson : MTU8B56E
 Sonix : SN8P1602
 MDT : MDT10P10
 Holtek : HT48R10A-1

1. Current

Current	VDD	Tenx1	Tenx2	Elan	Myson	Holtek	MDT	Sonix	PIC	UNIT	Conditions
I _{dd}	5V	0.1	1	1		2	1	35		uA	Sleep mode
	3V		1	1	9	1	1	10	12	uA	Watchdog off
I _{wdt}	5V	8.7	10	10		10	18	40		uA	Sleep mode
	3V	1.5			12	5	3.5	30	14	uA	Watchdog on
I _{op32a}	5V	33.5	30		1.77m		30			uA	32Khz operation
	3V	6.6	10	30	604			60	40	uA	current & WDT off
I _{op32b}	5V	44.1								uA	32Khz operation
	3V	8.4		35						uA	current & WDT on
I _{op4}	5V	0.98	1	1.6	2.22	5	0.69	9.5	3.3	mA	4Mhz operation
	3V	0.39			0.58	2	0.26	3.5		mA	current
I _{op8}	5V					8				mA	8Mhz operation
	3V								10	mA	current
I _{op10}	5V	1.65		4						mA	10Mhz operation
	3V	0.75				1.3			10	mA	current
I _{op12}	5V	1.85			4.39	0.55				mA	12Mhz operation
	3V	0.87			1.76					mA	current
I _{op16}	5V	2.25								mA	16Mhz operation
	3V	1.07								mA	current
I _{op20}	5V	2.89					2.4		20	mA	20Mhz operation
	3V	1.87					1.1			mA	current
I _{op24}	5V	3.09			5.84					mA	24Mhz operation
	3V				1.88					mA	current
I _{ldt2}	3	0.22	1.5							uA	Detect Voltage=2V
	5	2.85	3	5				180		uA	Detect Voltage=2V
I _{ldt4}	5	2.29	3	5				180		uA	Detect Voltage=4V

2. Voltage

Voltage	VDD	Tenx1	Tenx2	Elan	Myson	Holtek	MDT	Sonix	PIC	Unit	Conditions
Vreg32		2.0~ 7.0	2.5~ 5.5		2.1~ 6.4		2.1~ 6.4		2.5~ 6.25	V	32Khz operation
Vreg4		2.1~ 7.1	2.5~ 5.5		2.1~ 6.4	3.3~ 5.5	2.1~ 6.4		3.0~ 6.25	V	4Mhz operation
Vreg8			2.5~ 5.5	2.3~ 6.5		4.5~ 5.5				V	8Mhz operation
Vreg10		2.7~ 7.2	2.5~ 5.5		2.4~ 6.4		2.4~ 6.4			V	10Mhz operation
Vreg16		2.7~ 7.0	3.0~ 5.5	3.0~ 6.5						V	16Mhz operation
Vreg20		3.6~ 7.0	3.0~ 5.5						4.5~ 5.5	V	20Mhz operation
Vreg24		4.3~ 7.0	3.0~ 5.5		3.0~ 6.4		3~ 6.4			V	24Mhz operation
Vreg40				5.0~ 6.5						V	40Mhz operation
Vldt2	3	2.1~2.2 2.1~2.2	2.2 2.2							V	Detect voltage=2V L ->H H ->L
Vldt4	5	4.0~4.1 3.9~4.0	4 4	1.9~ 2.1		2.7~ 3.3		2.4~ 2.8	4.0 or No	V	Detect voltage=4V L ->H H ->L

