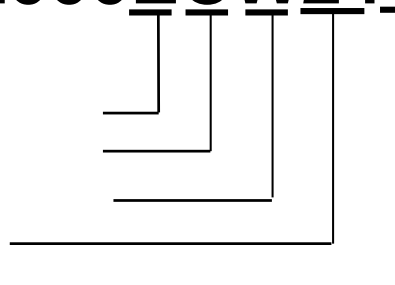


## *Revision History*

Revision No.	Date	Description of revise	Issued By	Approved By
1	Feb.5,2013	The first edition.	R.SATAKE	N.NAKANO

**KT2520P Parts Number****KT2520P52000ECW24TAA**

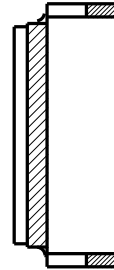
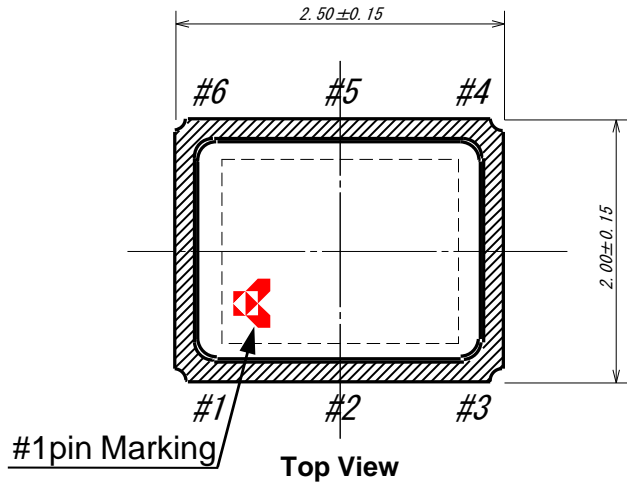
E : Freq. Stability vs Temp. +/-2.5 ppm  
 C : Bottom Temperature Limit -30 deg.C  
 W : Upper Temperature Limit +85 deg.C  
 24 : Power Supply Voltage 2.4V  
 T : Specification Number

**KT2520P Electrical Characteristics**

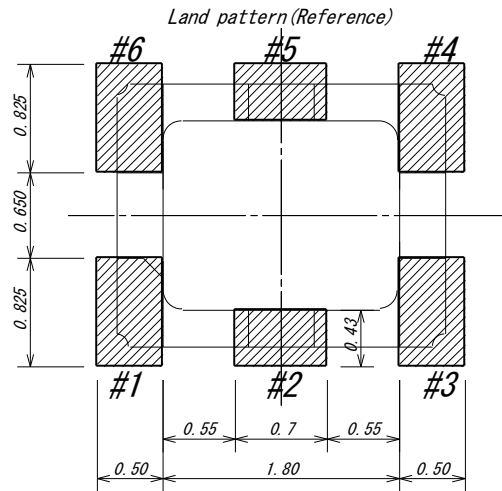
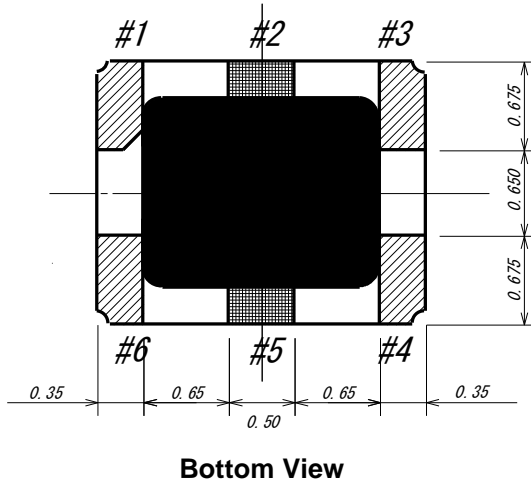
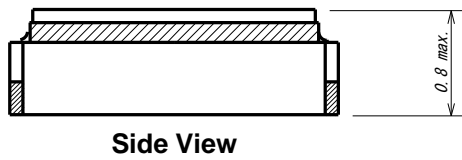
*Ta= -30deg.C to +85deg.C, Vcc=2.4V, Load 10kohm//10pF*

Symbol	Item	Condition	Specification	Unit	Remarks
Vcc	Power Supply Voltage		2.4+/-0.1	V	
F0	Nominal Frequency		52.000000	MHz	
Topr	Operating Temperature		-30 to +85	deg.C	
Tstg	Storage Temperature		-40 to +85	deg.C	
Vout	Output Voltage		0.8(min)	Vp-p	
Icc	Power Supply Current		2.0(max)	mA	
f0	Frequency Tolerance	Preset Frequency and after 2times reflow soldering	+/-2.0(max)	ppm	Ta=25+/-2deg.C
df/F	Frequency Stability	vs Temp -30 to +85deg.C	+/-2.5(max)	ppm	ref:Ta=25deg.C
		vs Load 10pF+/-10% 10kohm+/-10%	+/-0.2(max)	ppm	
		vs Voltage 2.4V+/-0.1V	+/-0.2(max)	ppm	
dfag	Frequency Aging Rate	Ta=25+/-2deg.C	+/-1.0(max)	ppm/Y	One Year
---	Harmonics		-5.0(max)	dBc	
---	Duty cycle		45 to 55	%	
Tst	Start up Time	90%*Vp-p(min)	2.0(max)	msec	
		Within +/-0.5ppm	2.0(max)		
---	SSB Carrier Noise	@1Hz offset	-50(max)	dBc/Hz	Ta=25+/-2deg.C
		@10Hz offset	-75(max)		
		@100Hz offset	-105(max)		
		@1KHz offset	-125(max)		
		@10KHz offset	-140(max)		
		@100KHz offset	-145(max)		
		@1MHz offset	-150(max)		

### KT2520P Dimension & Pin Connections & Recommended Land Pattern

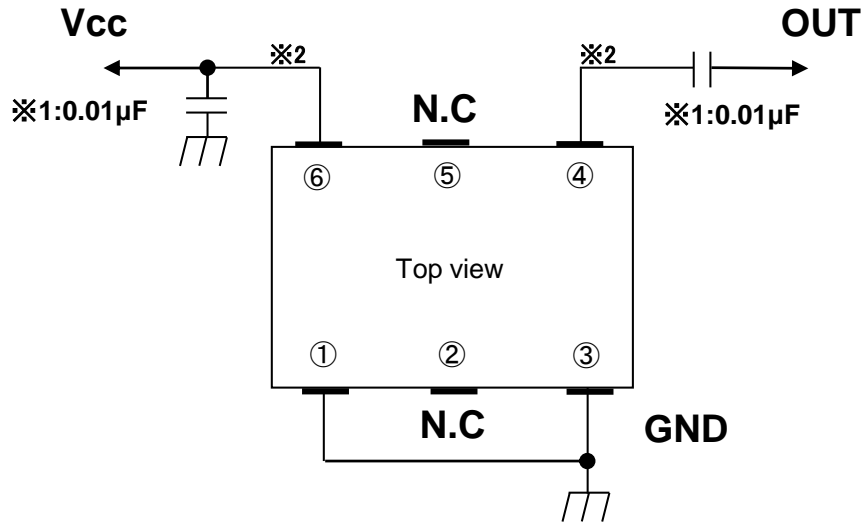


- #1 GND
  - #3 GND
  - #4 OUT
  - #6 Vcc
  - #2/#5 N.C
- Unit : mm

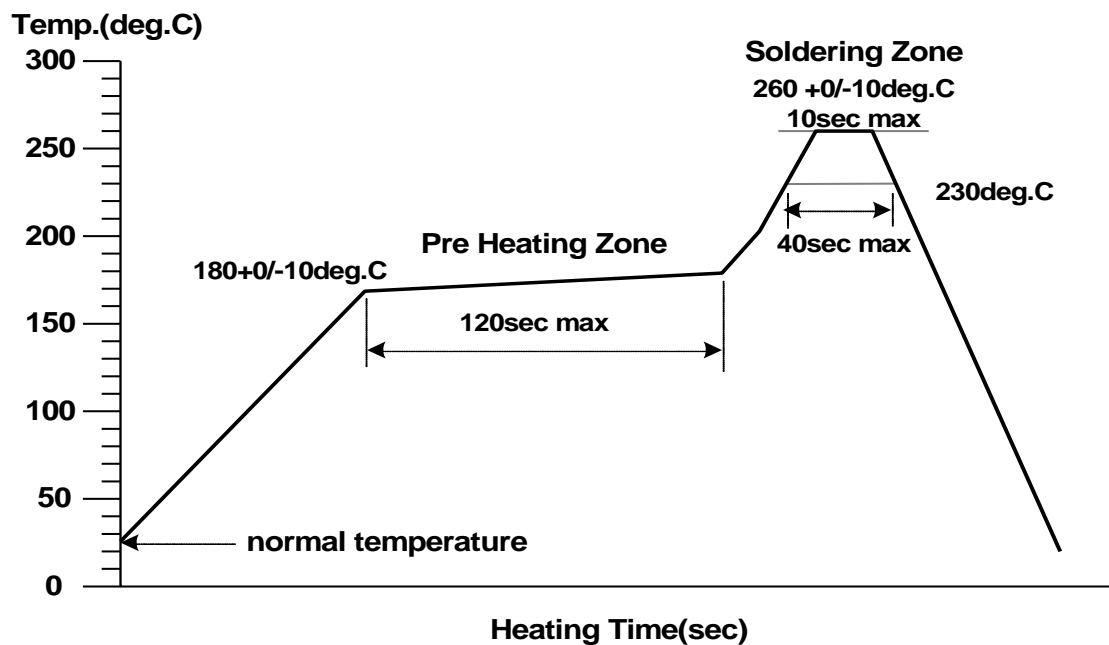


## KT2520P Recommended Circuit

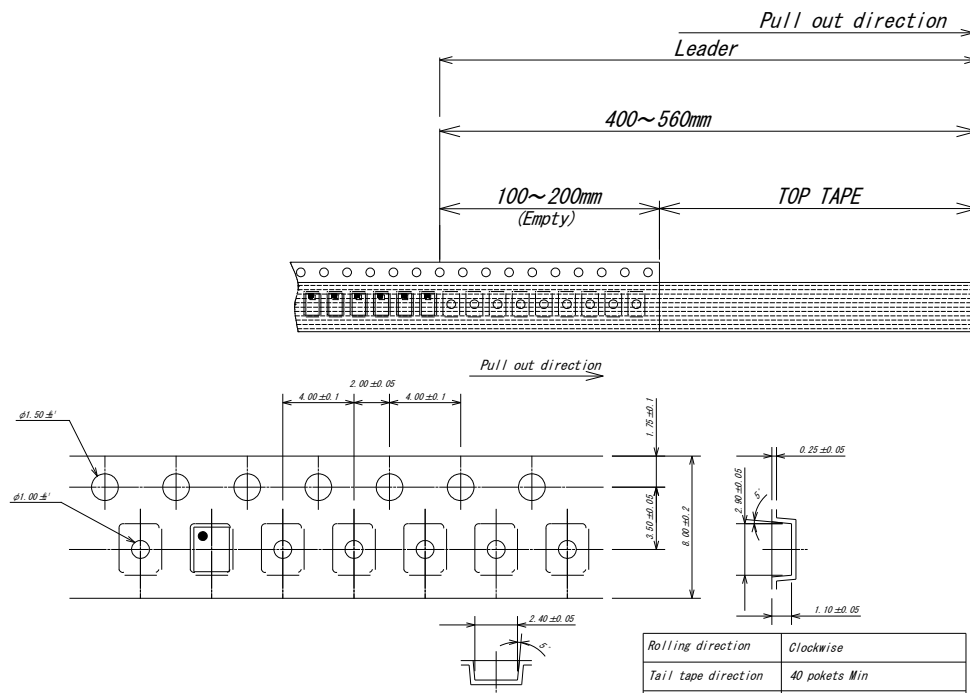
※1 Bypass Capacitor and DC-Blocking Capacitor do not build in this Parts. So, Bypass Capacitor and DC-Blocking Capacitor are attached outside and please use it. And these Capacitor should be ※2 placed as close as possible to the pin(No.4 and No.6).



## KT2520P Recommended Reflow Soldering Condition (Lead Free Version)



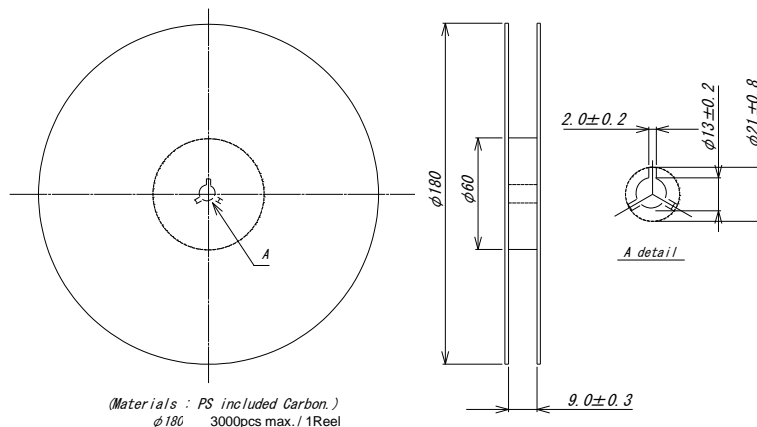
# KT2520P TAPE&REEL SPEC



(Materials : Carrier Tape PS included Carbon , Cover Tape PET .)

Rolling direction	Clockwise
Tail tape direction	40 pokets Min
Tape ending management	Adhesive tape fixed on reel
Pull out strength	10N Min
Tear off strength	0.1N~0.7N (Speed 300mm/min)

## Reel Dimensions



(Materials : PS included Carbon.)  
 $\phi 180$  3000pcs max./1Reel

- ① Reel diameter  $\phi 180$
- ② Quantity 3000pcs max./1Reel
- ③ Tape width 8mm
- ④ Tape pitch 4mm
- ⑤ Set direction Guide side , Fiducial marking
- ⑥ For exclusive label No.

## ***KT2520P Notice***

1. Please use soldering iron and the spot heater within the range of a solder heat test condition.
2. Units should be stored in a dry environment keeping away from the sun.
3. Don't leave units in high-Temperature and high-humidity environment due to terminal solderability.  
(Please keep 0°C ~ 40°C and 30% ~ 70%RH for recommendable storage condition)
4. The term of a guarantee of taping packing is 6 months. (0 deg.C to 40 deg.C, RH30% to 70%)
5. Disapprove of washing.
6. Unless we receive request for modification within 1 month from the issue date of this KKC specification sheet, we will supply products according to this specification.  
Also, if you'd like to modify specification of order, which has been placed with delivery within 1 month from the issue data of this specification sheet, we would like to discuss with you separately.
7. If you intend to use products listed on this specification for applications that may result in loss of life or assets (controls relating to safety, medical equipment, aeronautical equipment, space equipment, etc.), please do not fail to advise us of your intention beforehand.
8. In no event shall the company be liable for any product failure resulting from an inappropriate.  
Handling or operation of the product beyond the scope of its guarantee.
9. Information contained in this specification must not be quoted, reproduced or used for other purposes including processing either in part or in full without obtaining prior approval from the company.
10. Moisture sensitivity level  
MSL=1