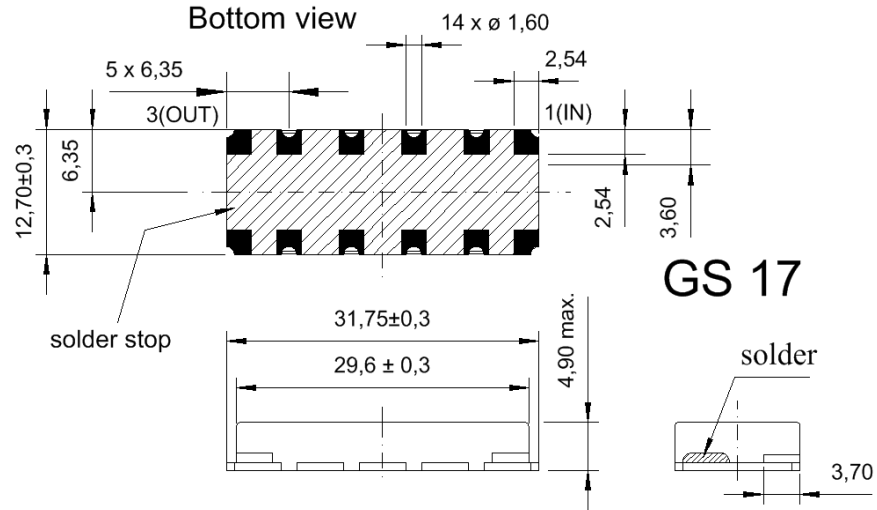


Specification for monolithic crystal filter: **MQF 45.0-3000/30**

**1. General**

1.1. Package:

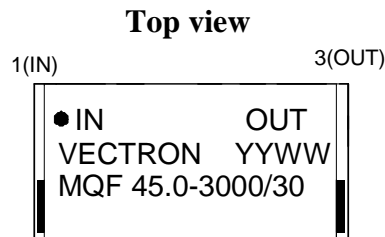


- 1.2. Type name: MQF 45.0-3000/30
- 1.3. Number of poles: 6
- 1.4. Operating temperature range: -20°C to +70°C
- 1.5. Storage temperature range: -40°C to +85°C

**2. Electric values**

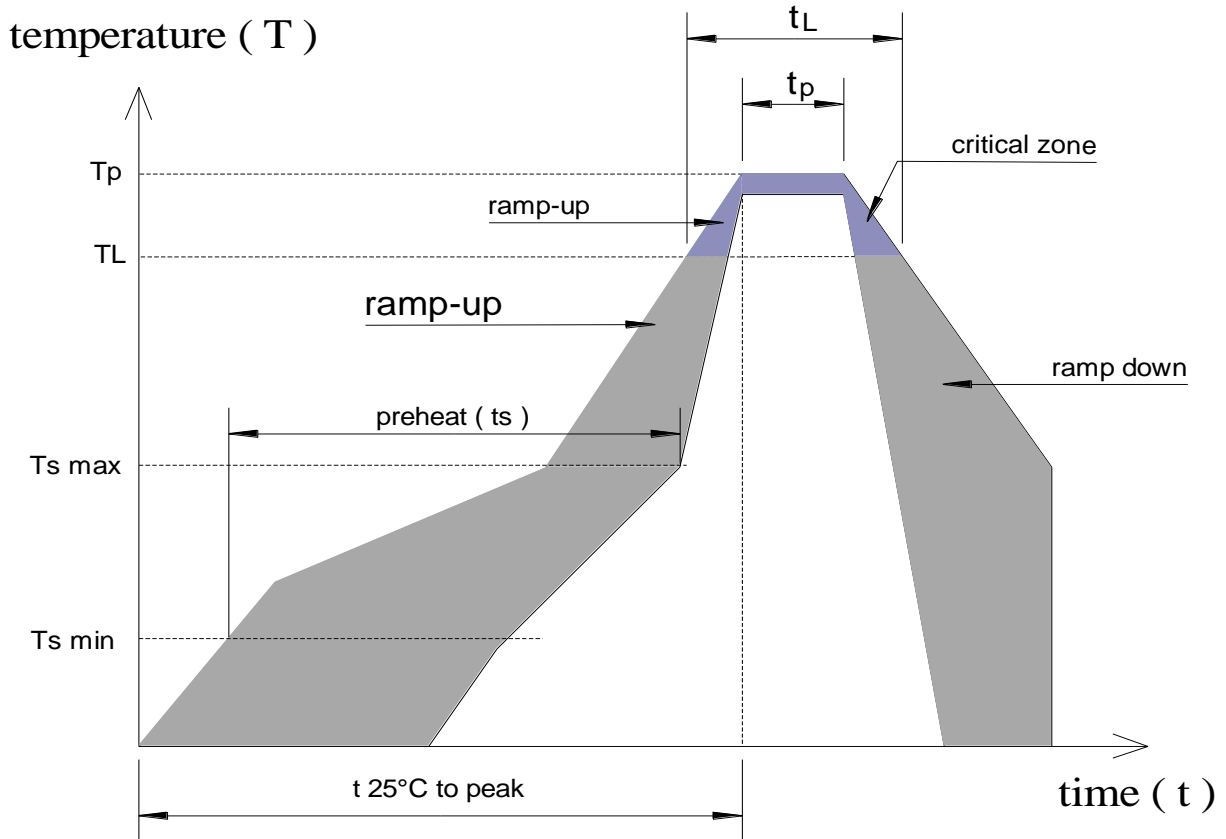
- 2.1. Nominal centre frequency fo: 45.0 MHz
- 2.2. **Pass band**
  - 2.2.1 Centre frequency fc: 45.0 MHz ± 1.2 kHz
  - 2.2.2. Bandwidth between 3 dB - frequencies: > fo ± 15 kHz
  - 2.2.3. Ripple at fo ± 10 kHz: < 1.5 dB
  - 2.2.4. Insertion loss: < 4.0 dB  
( measured on smallest attenuation in pass band )
  - 2.2.5. Return loss at fo ± 10 kHz: > 11 dB
- 2.3. **Stop band**
  - 2.3.1. fo ± 50 kHz: > 63 dB
  - 2.3.2. fo ± 100 kHz.....fo ± 1MHz ): > 85 dB except spurious
- 2.4. Terminating impedance R//C (input and output): 50 Ω // 0 pF

3. Marking:



- 4. Environment conditions: Corresponding to Vectron standard CF001

5.) Reflow profile corresponding to IPC / JEDEC J-STD-020C




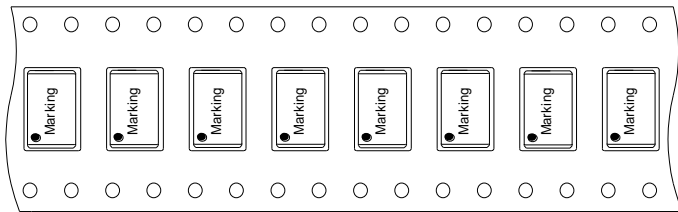
Profile Feature	Pb-free assembly	
	small body	large body
Average ramp-up rate ( $T_L$ to $T_p$ )	3°C / second max.	
Average ramp-up rate ( $T_{smax}$ to $T_L$ )	3°C / second max.	
Preheat: - Temperature Min $T_{smin}$ - Temperature Min $T_{smax}$ - Time $t_s$ ( $T_{smin}$ to $T_{smax}$ )	150°C 200°C 60-180 seconds	
Time maintained above: - Temperature $T_L$ - Time $t_L$	217°C 60-150 seconds	
Peak temperature $T_p$	260 +0/-6°C	
Time within 5°C of actual peak temperature $T_p$	10-30 seconds	20-40 seconds
Ramp-down rate	6°C / second max.	
Time 25°C to peak temperature	8 minutes max.	

All temperatures refer to topside of the package, measured on body surface of the package

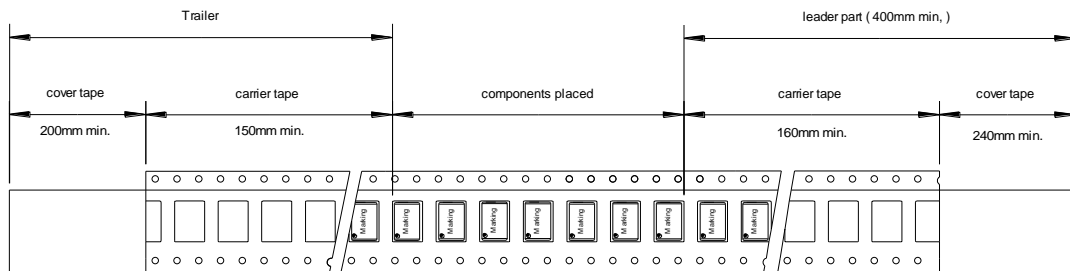
## 6. Taping

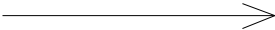
Maximum 600 pcs. / reel

Drawing out direction 



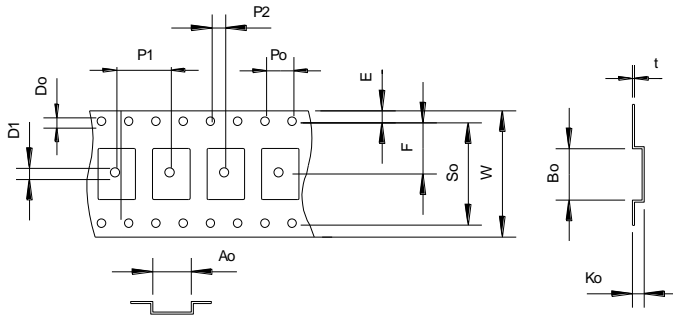
Tape dimension ( mm )



Drawing out direction ( leading direction ) 

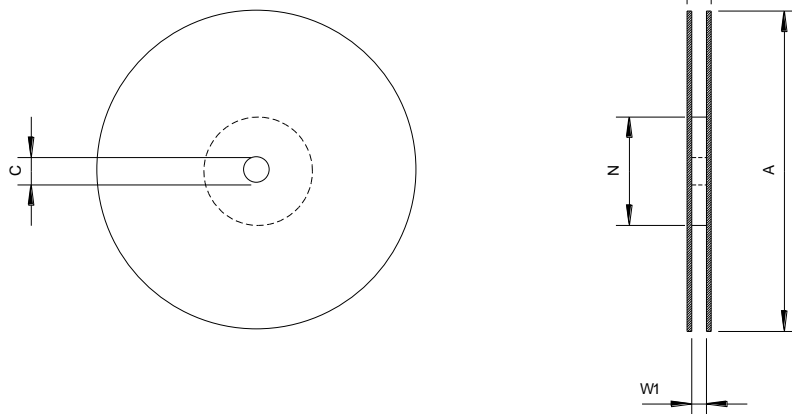
Tape ( all dimensions in mm )

- W:  $44.0 \pm 0.3$
- So:  $40.4 \pm 0.1$
- Po:  $4.0 \pm 0.1$
- P1:  $20.0 \pm 0.1$
- F:  $20.2 \pm 0.15$
- Ko:  $5.1 \pm 0.1$
- Ao:  $13.2 \pm 0.1$
- Bo:  $32.25 \pm 0.1$
- t:  $0.4 \pm 0.05$



Reel ( all dimension in mm )

- A:  $\varnothing 330 \text{ max.}$
- C:  $\varnothing 21.8 \pm 0.5$
- N:  $\varnothing 100 \text{ min.}$
- W1:  $45.5 \pm 0.25$
- W2:  $49.5 \pm 0.5$



Edited by: \_\_\_\_\_ date: \_\_\_\_\_ name: \_\_\_\_\_