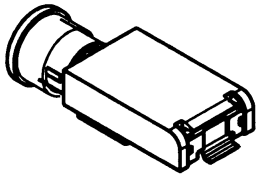

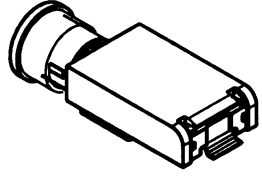
	Formblatt-Nr.	Data Sheet Mobile	Rev. : preliminary
	Form-TK-013b		Updated: 22.02.02
Description Switch		Part Number 3461.99.0030.003	Picture 
<div style="background-color: #00FF00; padding: 2px; display: inline-block;">colored value means</div> still under test; target value			


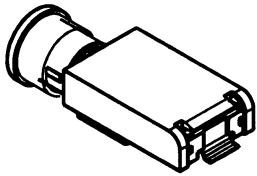
<u>ELECTRICAL CHARACTERISTICS</u>				Unit
Impedance (MIL-C-39012B)		50		[Ω]
Frequency range		DC..0-3		[GHz]
Power rating		2		[W]
Insertion loss		max. 0,5		[dBm]
		unswitched	switched	
Return loss:				
1 GHz		> 23	> 23	[dB]
2 GHz		> 20	> 20	[dB]
3 GHz		> 17	> 17	[dB]
Isolation – Ext to Int:				
1 GHz		-	> 30	[dB]
2 GHz		-	> 25	[dB]
3 GHz		-	> 22	[dB]
Contact resistance				
Center contact		< 50	< 50	[mΩ]
Outer contact		< 30	< 30	[mΩ]
Insulation resistance		> 500	-	[MΩ]
Operating voltage		100	100	[V]
Proof voltage		500	500	[V]

<u>MECHANICAL CHARACTERISTICS</u>			
	value	Unit	Remarks
Engagement force	Max. 27	[N]	(with mating connector 2813.91.1410.02')
Separating force	Min. 6	[N]	
Mating cycles	1.000	-	
Contact pressure force (switch)	typ. 0,30	[N]	(only switch, spring contact)

<u>MATERIAL & PLATING</u>		
	Material	Plating
Housing	GD-ZnAl4Cu1	8µm Cu+2-3µm Ni+min. 0,2µm Au
Insulator	PA46	-
Centre contact	B05	2-3µm Ni+min. 0,4µm Au
Other metal parts	B05/DIN2076/CuSn/CuZn	Tribor or min. 0,2µm Au or Ni

	Formblatt-Nr. Form-TK-013b	Data Sheet Mobile	Rev. : preliminary Updated: 22.02.02 Page: 2 of 4 File: 3461_99_spec_rev_preliminary
Description Switch <div style="border: 1px solid black; background-color: yellow; padding: 2px; display: inline-block; margin: 5px;"> colored value means </div> still under test; target value	Part Number 3461.99.0030.003	Picture 	

<u>ENVIRONMENTAL</u>		
	Standard	Remarks
Climatic sequence: 1. Dry heat 2. Damp heat, cyclic, 1 cycle 3. Cold 4. Damp heat, cyclic, 6 cycles	IEC 60068-2-61 IEC 60068-2-2-Ba IEC 60068-2-30-Db IEC 60068-2-1-Aa IEC 60068-2-30-Db	Var. 1 85°C / 16h Var. 1, upper temp: 55°C -25°C / 2h Var. 1, upper temp: 55°C

	Formblatt-Nr.	Data Sheet Mobile	Rev. : preliminary
	Form-TK-013b		Updated: 22.02.02
Description Switch <div style="display: flex; align-items: center;"> <div style="background-color: green; color: black; padding: 2px; margin-right: 5px;">colored value means</div> still under test; target value </div>		Part Number 3461.99.0030.003	Page: 3 of 4 File: 3461_99_spec_rev_preliminary
			Picture 

Soldering Requirement

Nokia standard: Pb-free appendix to MES00025 / Version 4.0

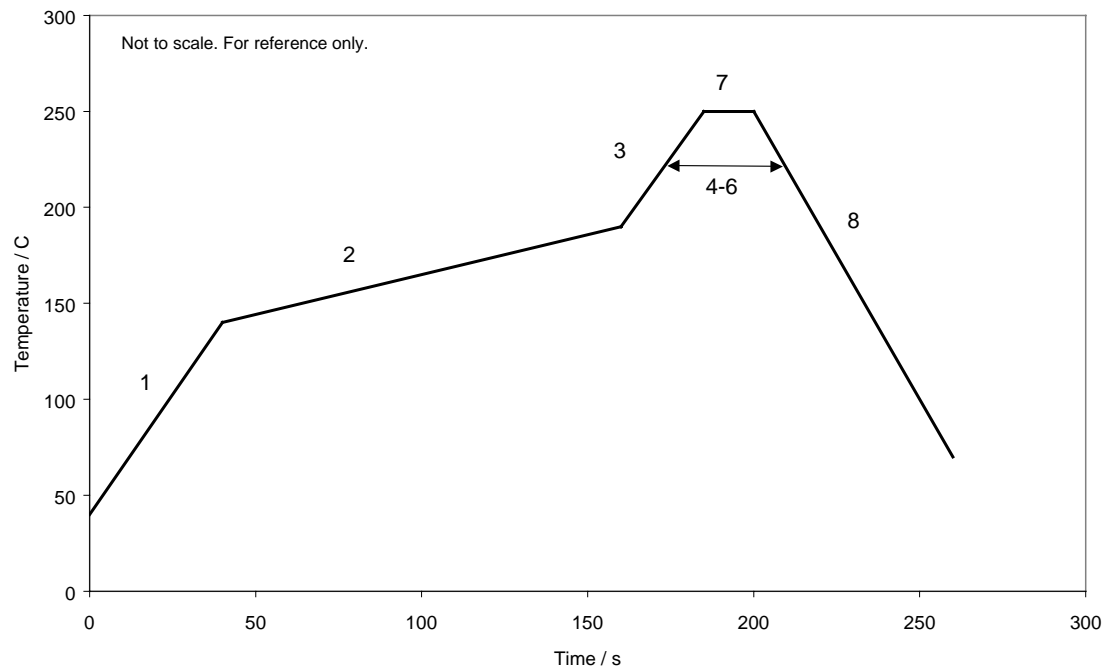
NMP Pb-free reflow soldering profile


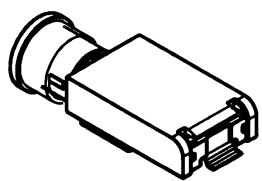
	Method of heat transfer	Controlled hot air convection
1	Average temperature gradient in preheating	2.5°C/s
2	Soak time	2-3 minutes
3	Max temperature gradient in reflow	3°C/s
4	Time above 200°C	Max 80 sec
5	Time above 217°C	Max 50 sec
6	Time above 230°C	Max 30 sec
7	Peak temperature in reflow	245-250°C for 10 seconds
8	Temperature gradient in cooling	Max -5°C
	Total length of profile	Max 300 s

All components have to tolerate this profile three times (3x) without affecting electrical performance, mechanical performance or reliability.

Note! Temperature measured at PWB surface. Lightweight components protruding high from PWB surface may heat up to 250°C (peak temperature).

Note! Heat transfer method is hot air convection. This is not applicable for infrared heating method.

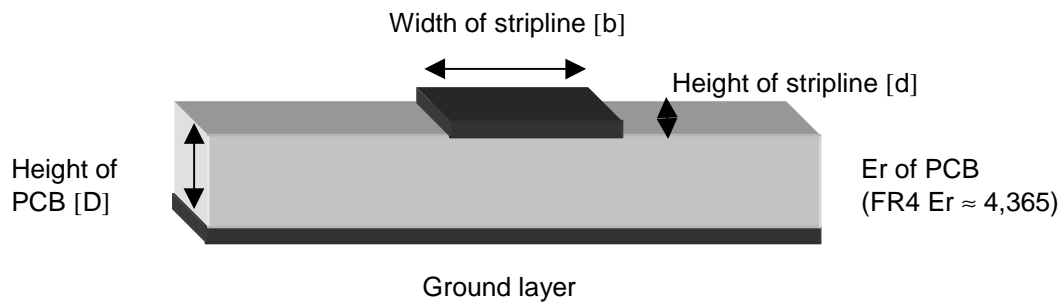


	Formblatt-Nr. Form-TK-013b	Data Sheet Mobile	Rev. : preliminary Updated: 22.02.02 Page: 4 of 4 File: 3461_99_spec_rev_preliminary
Description Switch <div style="background-color: green; color: black; padding: 2px; display: inline-block;">colored value means</div> still under test; target value	Part Number 3461.99.0030.003	Picture 	

Matching of PCB-Layout

For optimal performance you have to secure that all signal lines are matched well. We recommend to use a stripline matched to the impedance of the connector/switch. A stripline is calculated with the following factors :

1. Width of stripline [b]
2. Height of PCB (Distance to GND Layer) [D]
3. Height of Stripline [d]
4. Dielectric Constant [Er] of the PCB Material



Calculation of the impedance :

$$Z \approx \frac{75}{\sqrt{\epsilon r}} \ln^* \left(\frac{6 * D}{0.75 * b + d} + \frac{0,075 * b}{D} \right)$$

This is only a roughly calculation. There are more precision equation available for stripline calculations in literature.