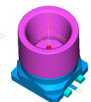
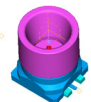


IMS CONNECTOR SYSTEMS	DATASHEET	Rev.c 11.05.2005
Description SMT-Switch	Part Number 3208.99.0030.00'	Picture 

<u>ELECTRICAL CHARACTERISTICS</u>				Unit
Impedance (MIL-C-39012B)		50	50	[Ω]
Operating frequency		DC...3	DC...3	[GHz]
Isolation				
	1 GHz	> 28		[dB]
	2 GHz	> 22		[dB]
	3 GHz	> 19		[dB]
		unswitched	switched	
Return loss:			measured with 3221.93.1420.03'	
	1 GHz	> 28	> 28	[dB]
	2 GHz	> 25	> 26	[dB]
	3 GHz	> 19	> 24	[dB]
Insertion loss				
	1 GHz	< 0,15	< 0,2	[dB]
	2 GHz	< 0,25	< 0,3	[dB]
	3 GHz	< 0,30	< 0,4	[dB]
Contact resistance				
Center contact		< 80	< 40	[mΩ]
Outer contact		< 10	< 25	[mΩ]
Insulation resistance		> 500	> 500	[MΩ]
Operating voltage		100	100	[V]
Proof voltage		500	500	[V]
<u>MECHANICAL CHARACTERISTICS</u>				
	value	Unit	Remarks	
Engagement force	max. 8	[N]	with mating connector	
Separating force	max. 1	[N]	3221.93.1420.03'	
Mating cycles	20000	-		
Contact pressure force (switch)	typ.0.2	[N]	(only switch, spring contact)	
<u>MATERIAL & PLATING</u>				
	Material	Plating		
Housing	GD-ZnAl4Cu1	Optalloy + Flash Au		
Insulator	PA 46	-		
Contact springs	CuBe2	Au over Ni		
Other metal parts	CuZn	Tribor or Au over Ni		

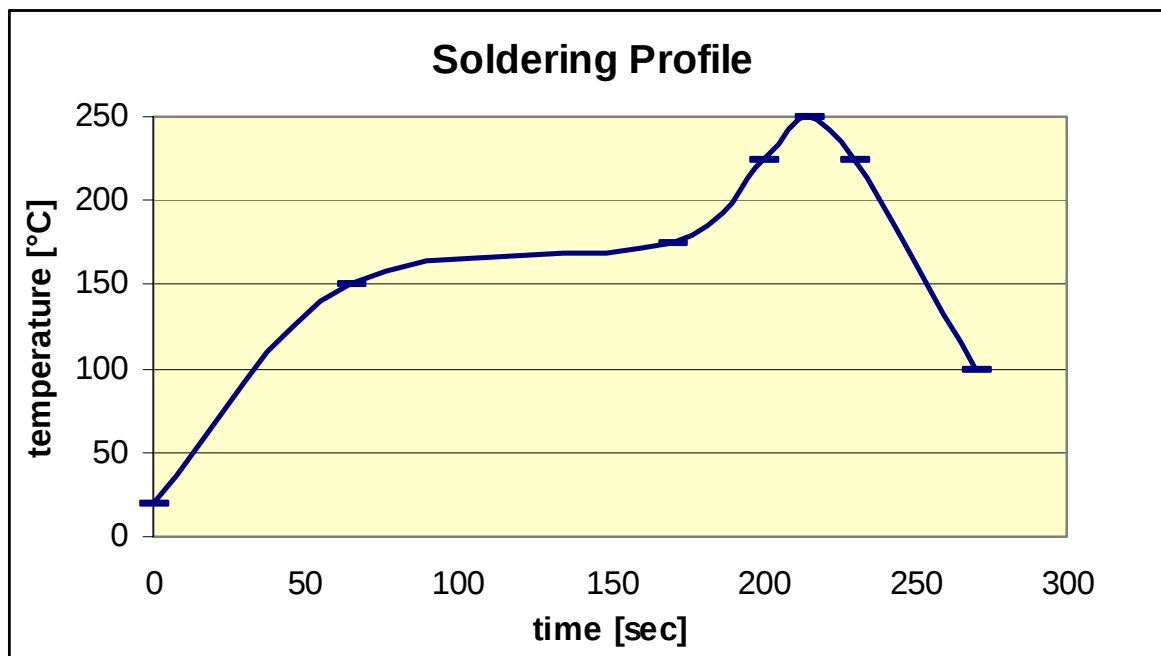
IMS CONNECTOR SYSTEMS	DATASHEET	Rev.c 11.05.2005
Description SMT-Switch	Part Number 3208.99.0030.00'	Picture 

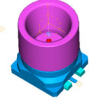
<u>ENVIROMENTAL</u>	Standard	Remarks
Climatic sequence: 1. Dry heat 2. Damp heat, cyclic, 1 cycle 3. Cold 4. Damp heat, cyclic, 6 cycles 5. Sealing interface	IEC 60068-2-61 IEC 60068-2-2-Ba IEC 60068-2-30-Db IEC 60068-2-1-Aa IEC 60068-2-30-Db EN 60529-IP67 acc.	Var. 1 85°C / 16h Var. 1, upper temp: 55°C -25°C / 2h Var. 1, upper temp: 55°C 0,2 bar – 1 sec. measure time. Leakage: max. 0,7 cm ³ /min.

SMD-solderability

Recommended reflow soldering profile, but no manual hot gas soldering or soldering by using the soldering iron is allowed.

Max. temperature 250°C (lead free soldering)

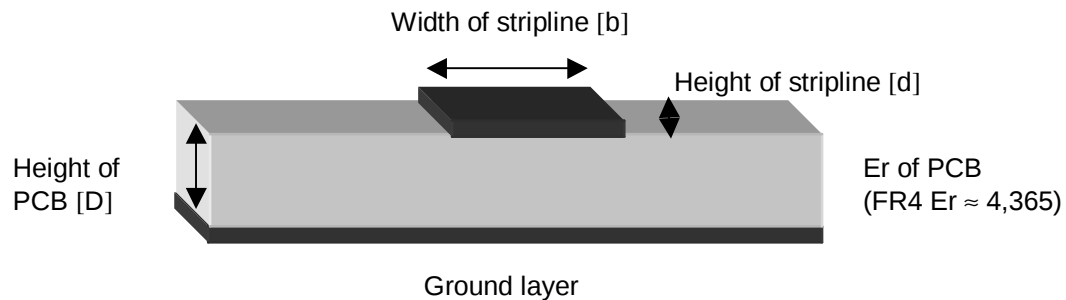


IMS CONNECTOR SYSTEMS	DATASHEET	Rev.c 11.05.2005
Description SMT-Switch	Part Number 3208.99.0030.00'	Picture 

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.