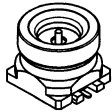


Description	Part Number	Picture
Switch	2909.99.0030.00'	

<u>ELECTRICAL CHARACTERISTICS</u>	unswitched	switched	Unit
Impedance (MIL-C-39012B) Operating frequency Isolation - 1 / 2 GHz	50 DC-2 -	50 DC-2 > 30 / > 23	[Ω] [GHz] [dB]
Return loss 1 GHz 2 GHz 3 GHz	> 30 > 27 -	> 26 > 24 -	[dB] [dB] [dB]
Insertion loss 1 GHz 2 GHz 3 GHz	< 0,13 < 0,18 -	< 0,13 < 0,20 -	[dB] [dB] [dB]
Contact resistance Center contact Outer contact	< 80 < 5	< 30 < 5	[m Ω] [m Ω]
Insulation resistance Operating voltage Proof voltage	> 500 100 500	> 500 100 500	[M Ω] [V] [V]

MECHANICAL CHARACTERISTICS

	value	Unit	Remarks
Engagement force	2	[N]	With mating connector 2613.93.1420.03'.
Separating force	1	[N]	
Mating cycles	20000	-	Only switch, spring contact.
Contact pressure force (switch)	typ. 0,20	[N]	

MATERIAL & PLATING

	Material	Plating
Housing	GD-ZnAl4Cu1	Optalloy & Flash Au
Insulator	PA46	-
Contact springs	CuSn6 / CuBe2	Au over Ni
Other metal parts	CuZn39	Tribor or Au over Ni

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Date :	31.05.01	Remarks:	
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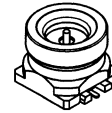
Description

Switch

Part Number

2909.99.0030.00'

Picture

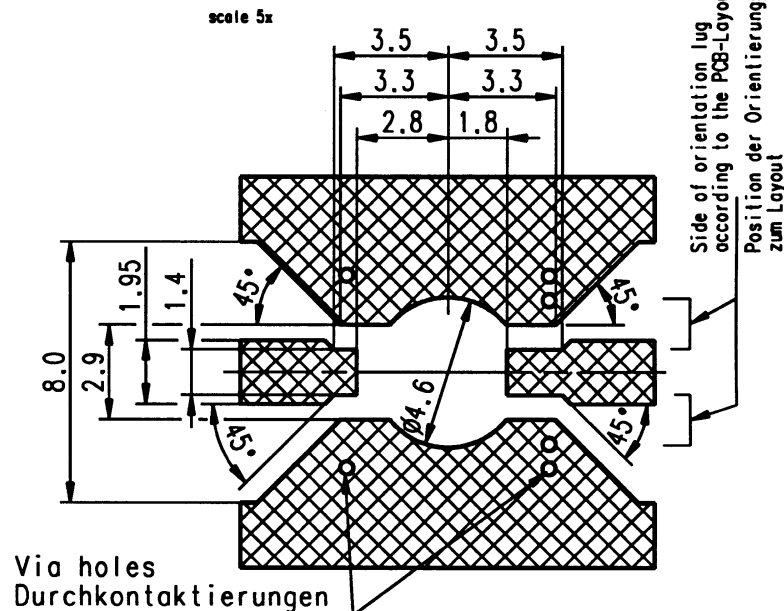


ENVIROMENTAL

	Standard	Remarks
1. Working temperature range	-40 °C up to +165 °C	
2. Moisture resistance	MIL-STD-202	10 cycles
3. Relative humidity	5 – 95 %	
4. Thermal cycling	-40 °C up to +125 °C	MIL-STD-202
5. Shock	MIL-STD-202	
6. Vibration	MIL-STD-202	
7. Corrosion	MIL-STD-202	
8. Sealing-interface	EN 60529-IP67	0,2 bar – 1 sec. measure time. Leakage: max. 0,7 cm ³ /min.

PCB – LAYOUT

Multilayer PCB under Switch
should be matched to 50 Ohm
SMT-Solderpad Layout proposal
SMT-Loetflaechen:



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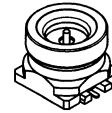
Description

Switch

Part Number

2909.99.0030.00'

Picture



SMD-solderability acc. IPC/JEDEC J-STD-020C – Pb-Free Process

Table 4-1 SnPb Eutectic Process – Package Peak Reflow Temperatures

Package Thickness	Volume mm ³ <350	Volume mm ³ ≥ 350
<2.5 mm	240 +0/-5 °C	225 +0/-5 °C
≥ 2.5 mm	225 +0/-5 °C	225 +0/-5 °C

Table 4-2 Pb-free Process – Package Classification Reflow Temperatures

Package Thickness	Volume mm ³ <350	Volume mm ³ 350 - 2000	Volume mm ³ >2000
<1.6 mm	260 +0 °C *	260 +0 °C *	260 +0 °C *
1.6 mm - 2.5 mm	260 +0 °C *	250 +0 °C *	245 +0 °C *
≥2.5 mm	250 +0 °C *	245 +0 °C *	245 +0 °C *

* Tolerance: The device manufacturer/supplier shall assure process compatibility up to and including the stated classification temperature (this means Peak reflow temperature +0 °C. For example 260 °C+0°C) at the rated MSL level.

Table 5-2 Classification Reflow Profiles

Profile Feature	Sn-Pb Eutectic Assembly	Pb-Free Assembly
Average Ramp-Up Rate (Ts _{max} to Tp)	3 °C/second max.	3° C/second max.
Preheat		
- Temperature Min (Ts _{min})	100 °C	150 °C
- Temperature Max (Ts _{max})	150 °C	200 °C
- Time (ts _{min} to ts _{max})	60-120 seconds	60-180 seconds
Time maintained above:		
- Temperature (T _L)	183 °C	217 °C
- Time (t _L)	60-150 seconds	60-150 seconds
Peak/Classification Temperature (Tp)	See Table 4.1	See Table 4.2
Time within 5 °C of actual Peak Temperature (tp)	10-30 seconds	20-40 seconds
Ramp-Down Rate	6 °C/second max.	6 °C/second max.
Time 25 °C to Peak	6 minutes max.	8 minutes max.

Note 1: All temperatures refer to topside of the package, measured on the package body surface.

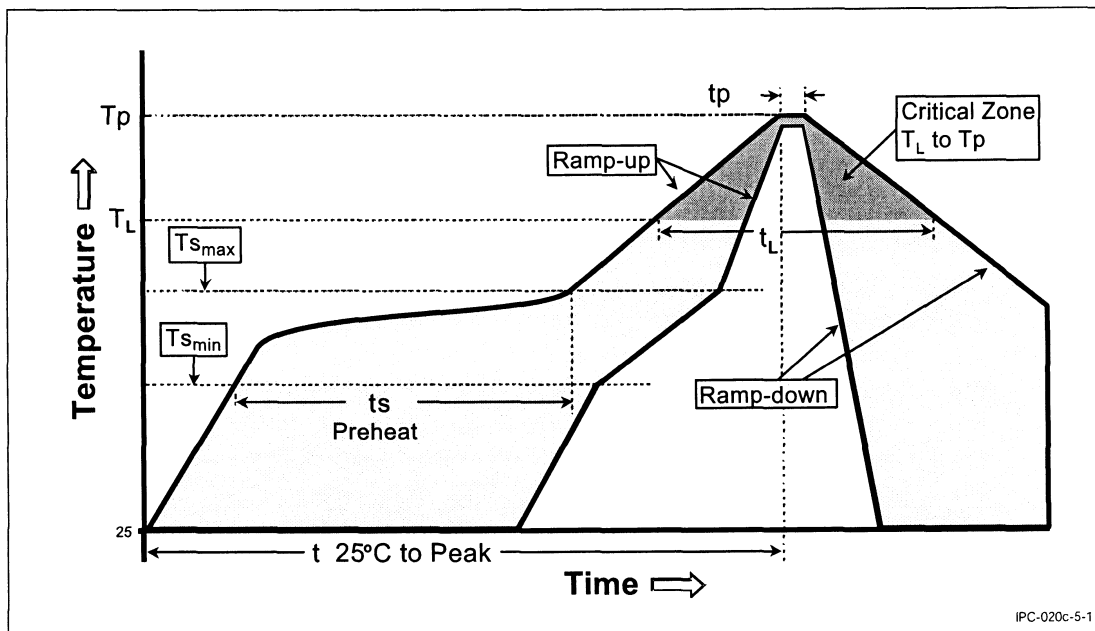


Figure 5-1 Classification Reflow Profile

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Date :	31.05.01	Remarks:	
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