

PMC-1001TH

Standard-SMD-Reed Switch for automated assembly



Features

- small size
- minimum height above PCB
- suitable for lead-free soldering
- suitable for automated assembly
- Tape & Reel packaging

Applications

- cellular phones
- portable PC
- automotive applications
- electro medical devices
- industrial equipment
- miniature sensors
- position detection

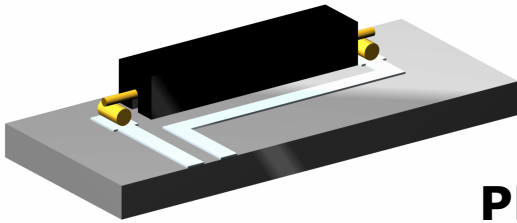
Description

Subminiature size, more than 1 billion reliable operations at dry or low level circuits, no supply voltage and zero power consumption makes the PMC-1001TH the ideal switching component for all battery powered devices such as flip-phones, notebooks etc.

It comes in standard T&R packaging for fully automated assembly. This and its most favourable pricing structure provides the perfect economical alternative to Hall IC-switches.

Absolute maximum ratings

Parameter	Symbol	Value	Unit
Contact rating	P_s	10	W
		10	VA
Switching current	I_s	700	mA
Carry current	I_c	1000	mA
Switching voltage	U_s	180	VDC
		130	VAC
Breakdown voltage	U_{bd}	200	VDC
Shock (1/2 sin 11 ms)		100	g
Vibration (50-2000 Hz)		20	g
Ambient temperature	T_{amb}	+125	°C
Soldering temperature (max. 60 sec.)	T_{sol}	+255	°C
Temperature gradient	$\Delta T / t$	10	K / s



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Electrical Characteristics

@25°C

Contact form	A
Contact material	Ru

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Contact rating	P_s	0		10	W
		0		10	VA
Switching voltage	U_s	0		180	VDC
		0		130	VAC
Switching current	I_s	0		700	mA
Carry current	I_c	0		1000	mA
Static contact resistance (initial)	CR_s	60	80	150	mΩ
Dynamic contact resistance	CR_{dyn}	80	100	200	mΩ
Insulation resistance	R_i	10^9	10^{10}		Ω
Breakdown voltage	U_{bd}	200			VDC
Operate time (incl. bounce)	T_{op}			0.5	ms
Release time	T_{rel}			0.3	ms
Capacitance	C		0.5		pF

Environmental Characteristics

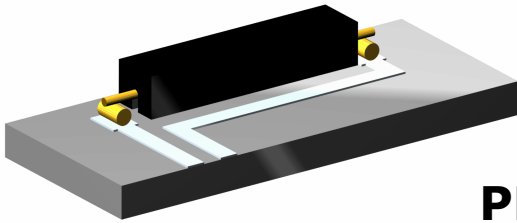
@25°C

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Shock (1/2 sin 11 ms)				100	g
Vibration (50-2000 Hz)				20	g
Storage temperature	T_{stg}	-40		+125	°C
Operating temperature	T_{op}	-40		+125	°C
Soldering temperature	T_{sol}			+255	°C
Electro magnetic compatibility	E_{max}			200	V/m
	H_{max}			10	A/m
Hermeticity				$2 \cdot 10^{-8}$	$m^3 Pa s^{-1}$
Tensile strength - axial		30			N

Magnetical Characteristics of modified switch measured in TC-010

@25°C

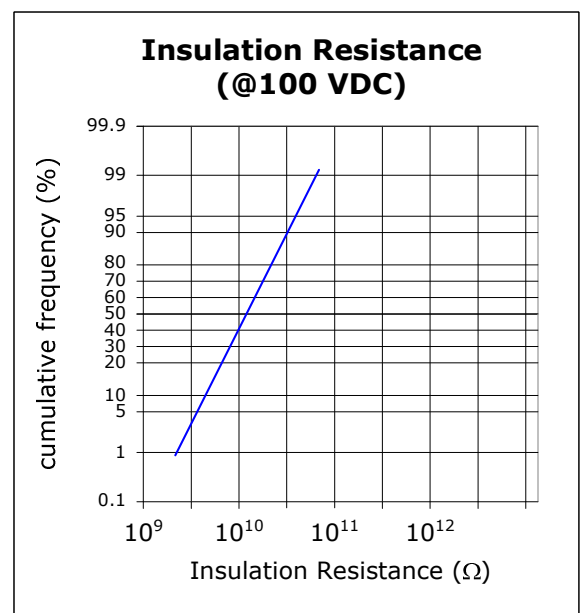
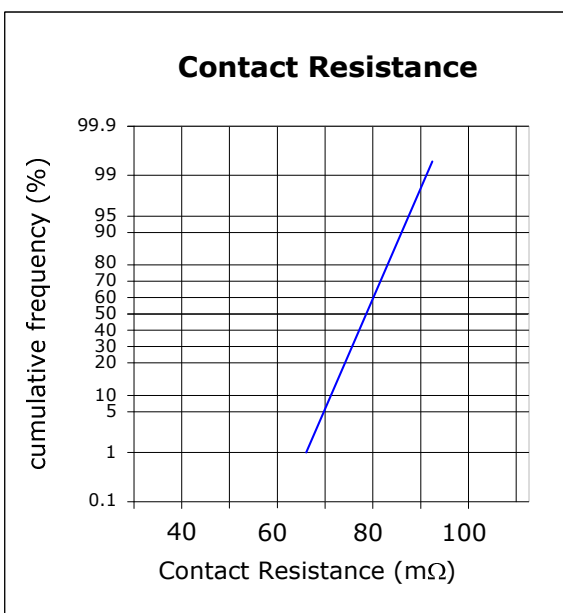
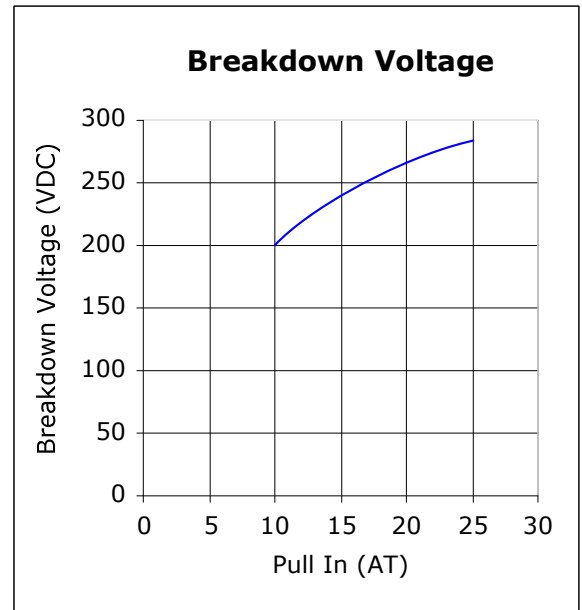
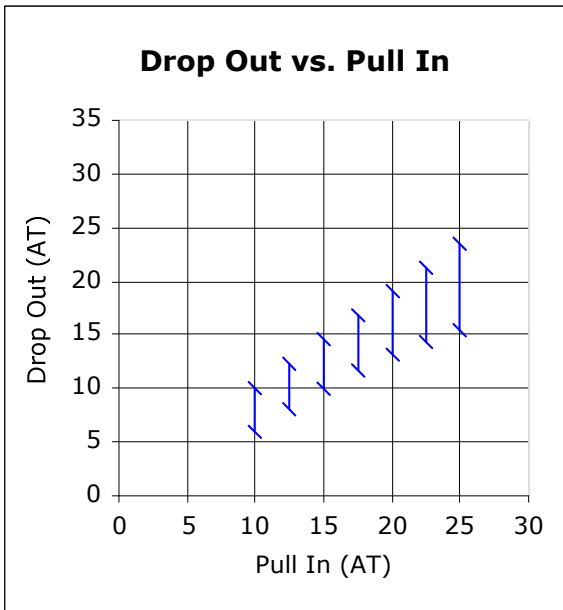
Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Pull in range available	PI	10		25	AT
Drop out	DO	4		20	AT
Hysteresis	PI-DO		6		AT

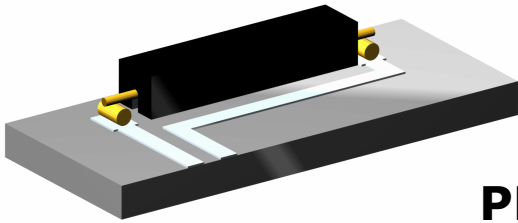


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Diagrams

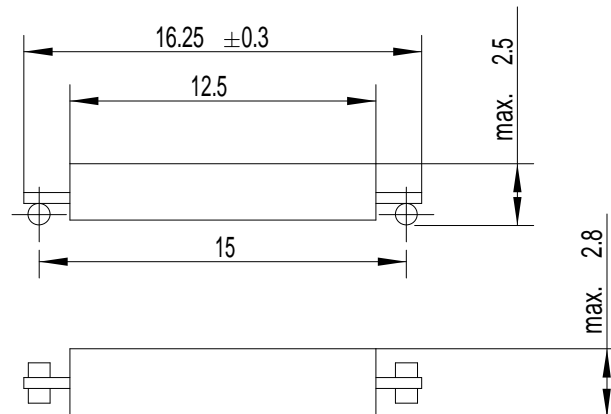




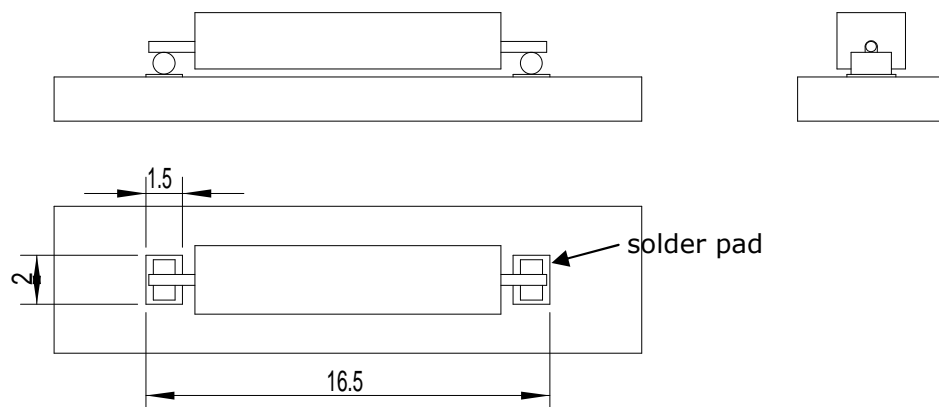
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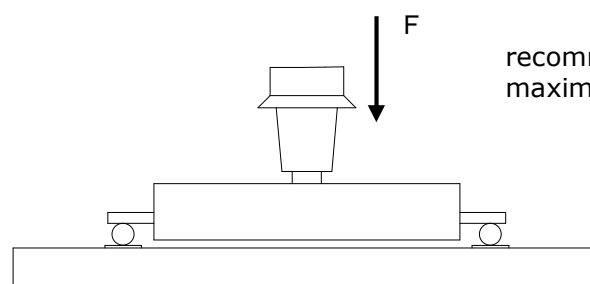
Dimensions



Recommended PCB layout

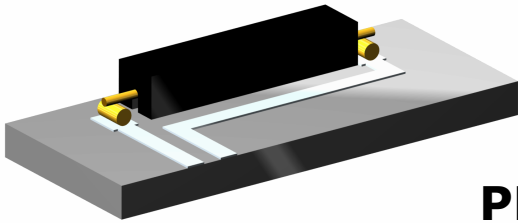


Mounting Force



recommended mounting force $F_{rec} = 3 \text{ N}$
maximum mounting force $F_{max} = 10 \text{ N}$

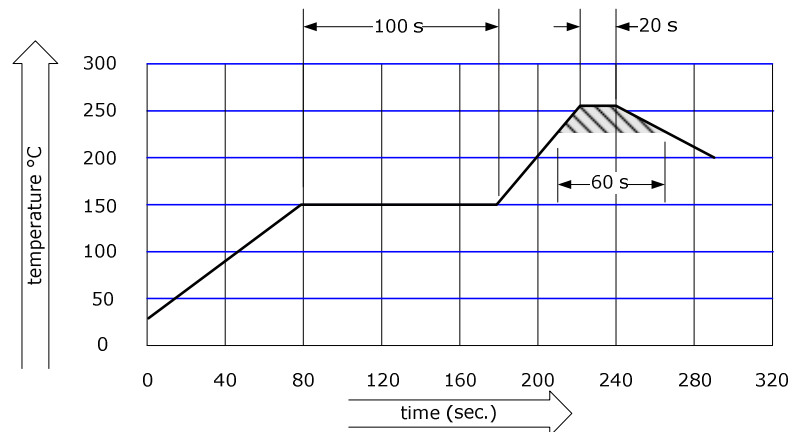
all dimensions in mm



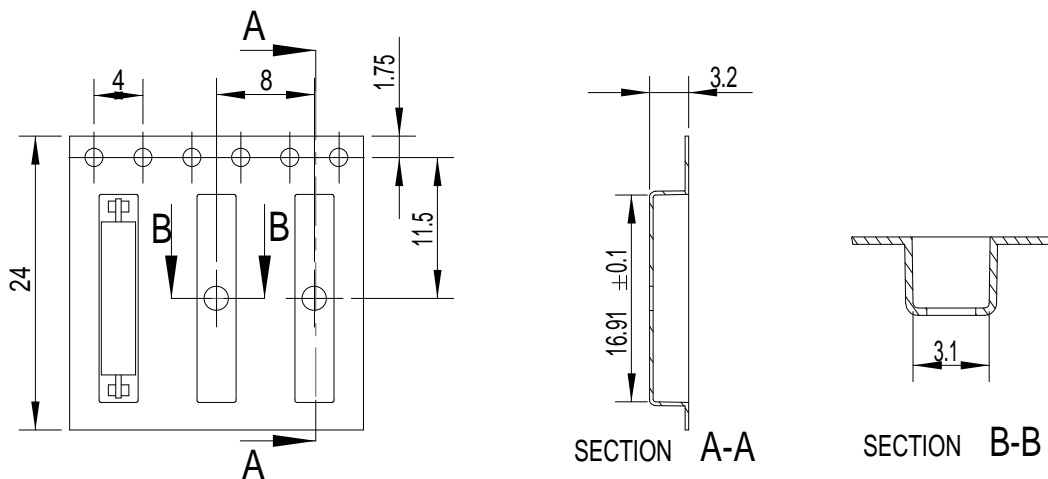
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Soldering Information



Tape



Ordering Information

Type	AT Range (measured in TC-010 at original length of 41.8mm)
PMC-1001TH	1015 (10 - 15 AT) 1520 (15 - 20 AT) 2025 (20 - 25 AT)

Ordering example: **PMC-1001TH1520** describes PMC-1001TH (15 to 20 AT).
Packing unit 2000 pcs. per 13"-Reel.

For further details please contact us:
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all dimensions in mm