

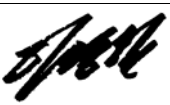





(주) 박 전자		DOOR SWITCH		PAGE 1 / 3	
MODEL	PS 100	SPECIFICATION		개발부	
<p>1. 적용 범위 본 사양은 냉장고와 이와 유사한 제품에 사용하는 DOOR SWITCH에 적용된다.</p> <p>2. 구조 2-1. 외형 및 치수 첨부 도면 참조</p> <p>2-2. 부품 및 재질 첨부 도면, 부품명세 및 재질 증명서 참조</p> <p>3. 전기적 성능 3-1. 정격 AC 125V 1A 50 ~ 60Hz AC 250V 0.5A 50 ~ 60Hz DC 5V 0.25mA</p> <p>3-2. 절연저항 - 초기치 ; 도체 상호간에 DC 500V 인가시 100MΩ 이상 - 시험후 (5항 참고) ; 도체 상호간에 DC 500V 인가시 10MΩ 이상</p> <p>3-3. 접촉저항 - 초기치 : 30mΩ 이하일 것. - 시험후(5항 참고) : 300mΩ 이하일 것.</p> <p>3-4. 내전압 도체 상호간에 AC 1,500V를 1 분간 인가시 절연 파괴가 없을 것.</p> <p>3-5. 사용 온도 -35℃ ~ 65℃</p> <p>4. 기계적 성능 (BUTTON 작동력 및 조건) 4-1. 동작점 (접촉 전환점) DOOR S/W의 접촉 전환점은 아래의 규격을 만족할 것 - LAMP SWITCH (ON → OFF) : 0.5 ~ 1.5mm - FAN SWITCH (OFF → ON) : 1.5 ~ 4mm</p> <p>4-2. 조작력 (작동력) - 접점 전환시 힘 : 350g 이하 - 최대 변위시 힘 : 450g 이하 - 접점 압력 : 40g 이상</p> <p>4-3. CORD 삽입력, 발거력 0.3 ~ 3kgf</p>			<p>1. SCOPE This specifications cover the required for door switch for used in refrigerator and other similar type of switch required to conform with this specification.</p> <p>2. CONSTRUCTION 2-1. SHAPE AND DIMENSION Please see attached drawing and part list.</p> <p>2-2. COMPONENTS AND MATERIALS Please see attached drawing and part list.</p> <p>3.ELECTRICAL PERFORMANCE 3-1. RATING AC 125V 1A 50 ~ 60Hz AC 250V 0.5A 50 ~ 60Hz DC 5V 0.25mA</p> <p>3-2. INSULATION RESISTANCE - BEFORE ANY TEST OR INITIAL ; Over 100 megaohms when DC 500V is applied. - AFTER ANY TEST (SEE ATTACHED 5.) ; Over 10 megaohms when DC 500V is applied.</p> <p>3-3. CONTACT RESISTANCE - BEFORE ANY TEST OR INITIAL : Less than 30mΩ - AFTER ANY TEST (SEE ATTACHED 5.) : Less than 300mΩ</p> <p>3-4. DIELECTRIC STRENGTH The door s/w shall withstand when AC 1,500V is applied for one minute both side of conductor.</p> <p>3-5. TEMPERATURE RANGE FOR USE -35℃ ~ 65℃</p> <p>4. MECHANICAL PERFORMANCE 4-1. CONVERTING POINT The converting point of door s/w specified below. - LAMP SWITCH (ON → OFF) : 0.5 ~ 1.5mm - FAN SWITCH (OFF → ON) : 1.5 ~ 4mm</p> <p>4-2. OPERATING FORCE - The force when current changing point : 350g max. - The force when maximum displacement of plunger : 450g max. - Contact pressure : 40g min.</p> <p>4-3. INSERTION AND WITHDRAWAL FORCE (WHEN APPLIED PLUG IS USED) : 0.3 ~ 3kgf</p>		
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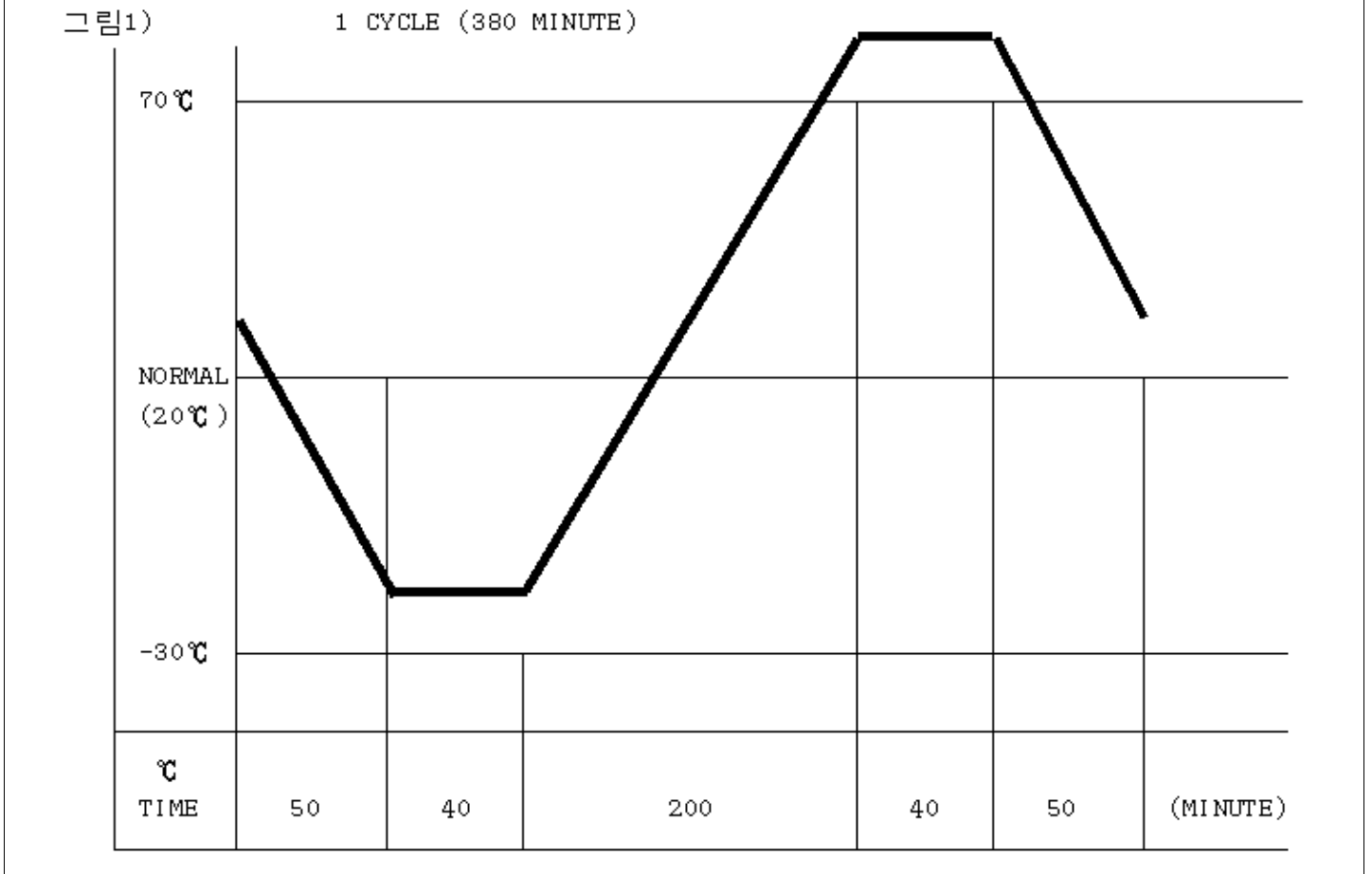
(주) 박 전자		DOOR SWITCH		PAGE 2 / 3	
MODEL	PS 100	SPECIFICATION		개발부	
<p>4-4. 단자 강도 각 단자의 축 방향으로 500g의 정하중을 인가 시 단자의 탈락이나 파손이 없을 것.</p> <p>4-5. 충격 시험 DOOR SWITCH를 1M의 높이에서 콘크리트 바닥에 수직으로 자연낙하를 3회 실시 후 관찰시 파손이나 동작에 이상이 없을 것.</p> <p>5. 환경 시험</p> <p>5-1. 수명시험 15W 부하에서 1분당 6회의 비율로 15만회 시험 후 외형의 변형 및 사용상의 기타 유해한 결함이 없을 것. 전기적 성능은 3-2항, 3-3항 및 3-4항을 만족할 것.</p> <p>5-2. 내습시험 온도 45℃±2℃ 습도 90~95%의 항온 항습조에 96시간 넣었다가 꺼내어 표면의 습기를 제거하고 상온 상습에서 30분간 방치후, 전기적 성능은 3-2, 3-3항 및 3-4항을 만족할 것.</p> <p>5-3. 내열시험 온도 80℃±3℃의 항온조에 1시간 넣었다가 꺼내어 상온 상습에서 30분간 방치 후 전기적 성능은 3-2, 3-3항 및 3-4항을 만족하며 변형 및 균열이 없을 것.</p>			<p>4-4. TERMINAL STRENGTH There is no destroy and damage of terminal when 500g of steady load is applied to direction of side.</p> <p>4-5. IMPACT TEST (DROP TEST) There is no breakdown and damage of door switch when 3 times of free groping as condition below. - HEIGHT : 1 - BOTTOM : CONCRETE</p> <p>5. ENVIRONMENTS</p> <p>5-1. LIFE TEST After 150,000 times at 6 cycle per one minute shall show 15W load show no evidence of deformation and out of order for use. and shall be capable of satisfactory performance per paragraphs 3-2, 3-3 and 3-4.</p> <p>5-2. HUMIDITY TEST The door switch shall be exposed in a humidity chamber at temperature of 45℃±2℃ and relative humidity of 90% to 95% for a period of 96 hours, and shall then be returned and allowed to remain at room condition for a period of 30 minutes, and blew off any water drops on the surface of the door switch by air, and shall be capable of Satisfactory performance per paragraphs 3-2, 3-3 And 3-4.</p> <p>5-3. HEAT TEST The DOOR SWITCH shall be exposed in a hot chamber at temperature of 80℃±3℃ for a period of 1 hour, shall then be returned and allowed to Remain at room condition for period of 30 minutes stabilize prior the measurement. The door switch Shall be capable of satisfactory performance per Paragraphs 3-2, 3-3 and 3-4.</p>		
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5-4. 내한 시험
온도 $-30^{\circ}\text{C} \pm 3^{\circ}\text{C}$ 의 항냉조에 1시간 넣었다가 꺼내어 상온 상습에서 30분간 방치 후 전기적 성능은 3-2항, 3-3항 및 3-4항을 만족하며, 변형, 균형 및 파손이 없을 것.




5-5. 온도 CYCLE 시험
그림 1)의 조건으로 5CYCLE 시험 후 3-2항 3-4항을 80% 이상 만족하고 접촉저항은 100ml 이하일 것.

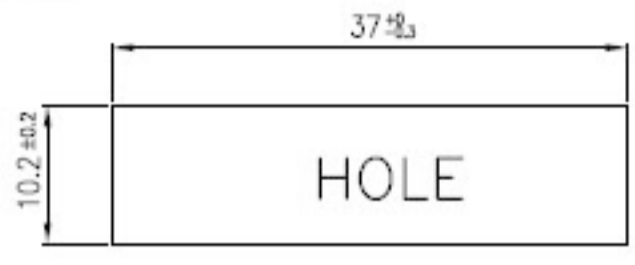
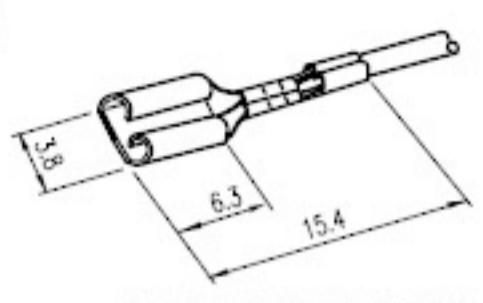
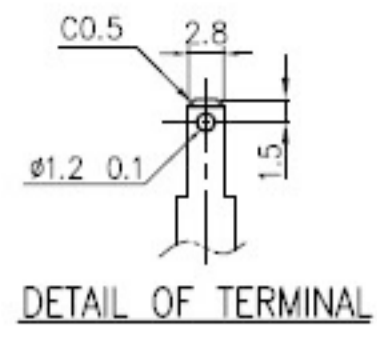
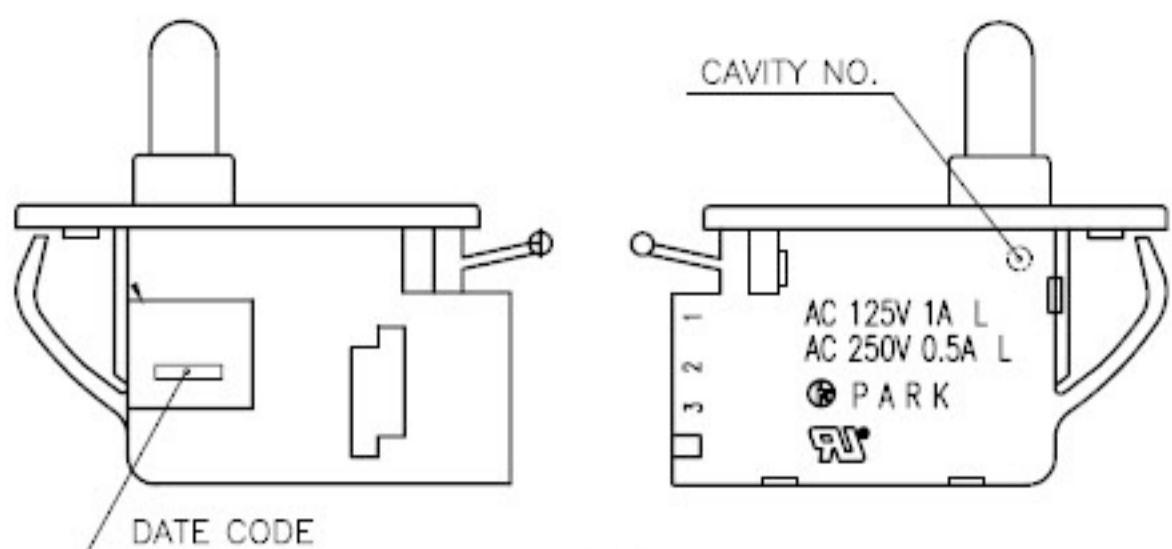
5-4. COLD TEST
The door switch shall be exposed in a cold chamber at temperature of $-30^{\circ}\text{C} \pm 3^{\circ}\text{C}$ for a period of 30 minute to stabilize prior the measurement.
The door switch shall be capable of satisfactory performance per paragraphs 3-2, 3-3 and 3-4, shall show no evidence of cracking, crazing and deformation of the insulation parts.

5-5. TEMPERATURE CYCLING
The door switch shall be subjected to the condition of described below for a total 5 cycles performed continuously.
The door switch shall be capable of satisfactory a 80% per paragraphs 3-2, 3-4 and the contact resistance is 100ml MAX.

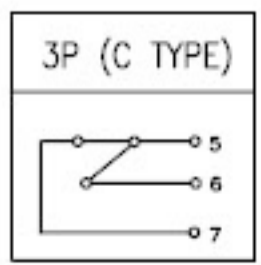
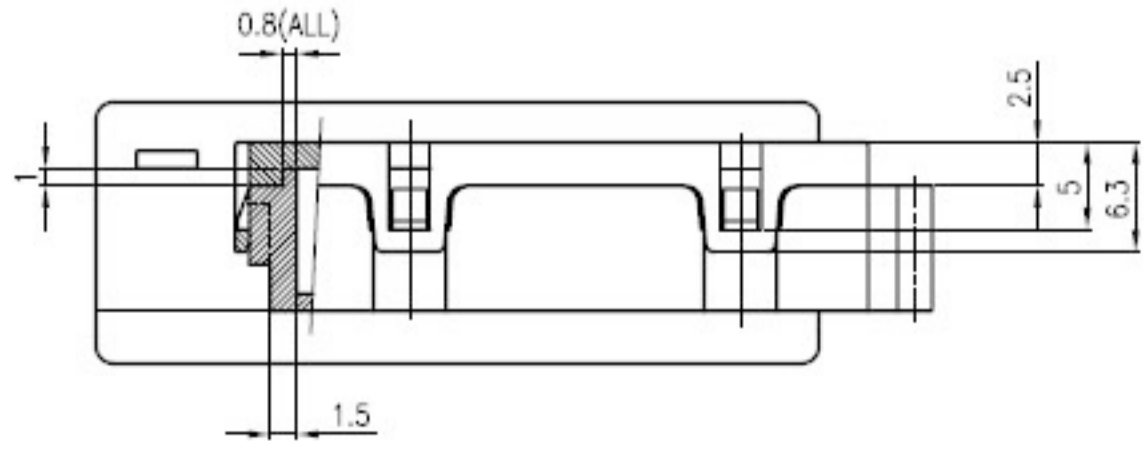
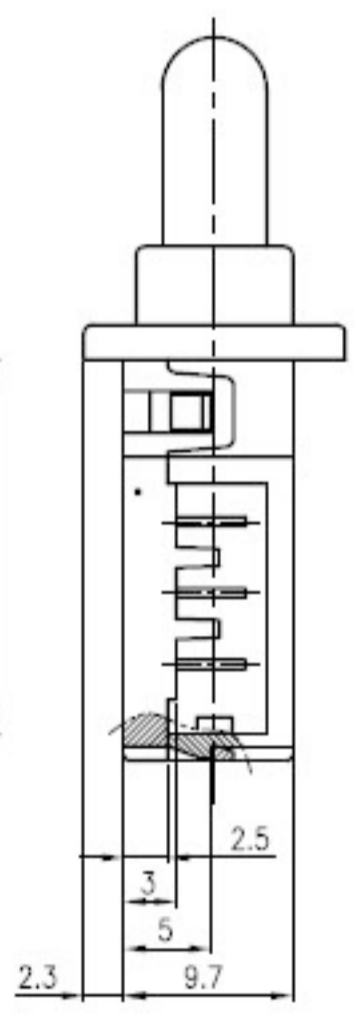
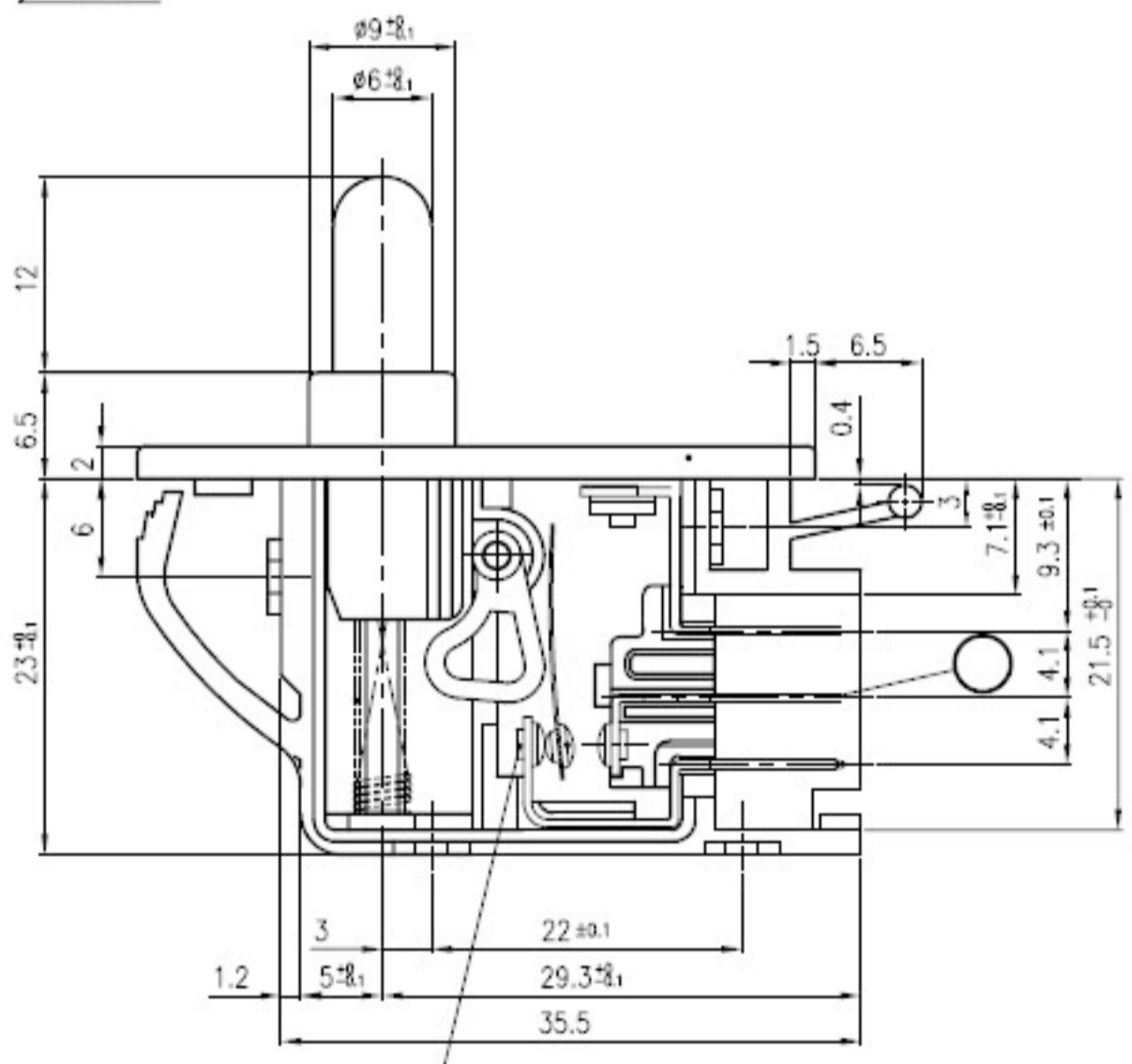
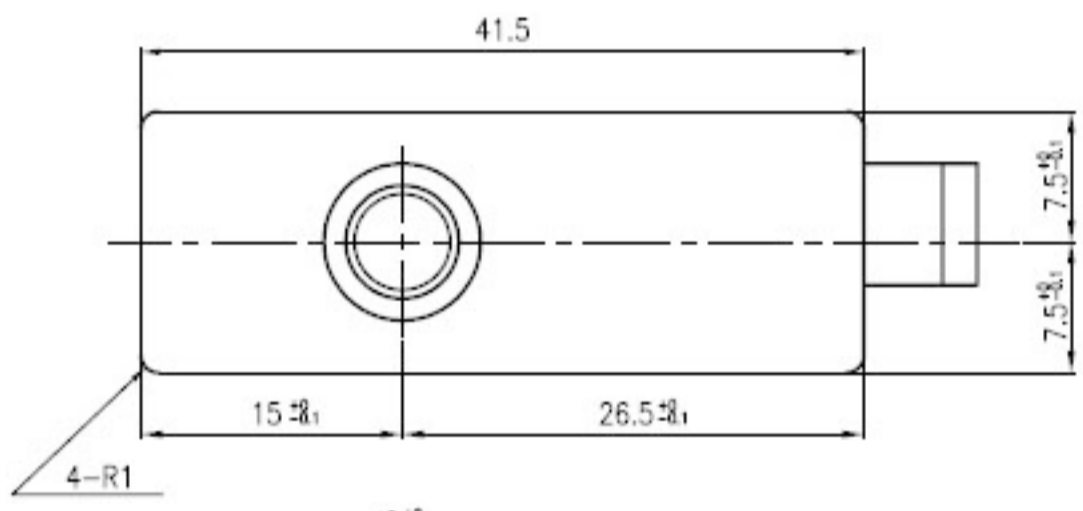


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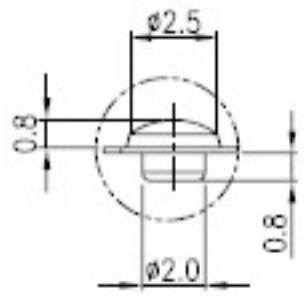
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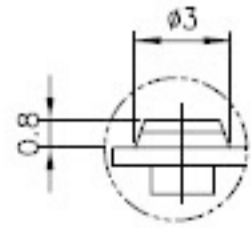
— 취부 HOLE —



CIRCUIT DIAGRAM



DETAIL- 8 (S=5/1)
(R-TYPE)



DETAIL- 9 (S=5/1)
(F-TYPE)