

ITEM	DESC.	Q'TY	MATERIALS	TREATMENT	REMARK
1.	COVER	1	HIGH – TEMP. THERMOPLASTIC PPS UL 94V–0	MOLDED BLACK	-
2.	ACTUATOR	1	THERMOPLASTIC NYLON UL 94V-0	MOLDED WHITE	-
3.	CONTACT	1	ALLOY-COPPER	GOLD PLATED AT CONTACT AREA.	-
4.	TERMINAL	1	BRASS	□= GOLD PLATED P= GOLD PLATED AT CONTACT AREA,TIN/LEAD AT TERMINATION AREA.	-
5.	BASE	1	THERMOPLASTIC PPS UL 94V-0	MOLDED BLACK	-
6.	TAPE	1	KAPTON	-	-
02 03 04 05 06 07 08 09 10 12 2 The ar	= 4 Position = 5 Position = 6 Position = 7 Position = 8 Position = 9 Position = 10 Position = 12 Position	tor.	PE DJR TY DJR TY DJR TY DJR TY DJR TY	Package Style: —	Sealed ed Plated
A EC					

DM(R) · NDI(R) · DL(R)-V SPECIFICATION

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1.Style:

This specification describes "DUAL IN-LINE PACKAGE SWITCHES" mainly used as signal switch of electric devices with the general requirements of mechanical and electrical characteristics.

1.1 Operating Temperature Range : -20° C ~ $+85^{\circ}$ C 1.2 Storage Temperature Range : -40° C ~ $+85^{\circ}$ C

2. Current Range:

2.1 Non-Switching: 100mA, 50V DC2.2 Switching: 25mA, 24V DC3. Type of Actuation: Actuated by sliding

4. Test Sequence

	ITEM	DESCRIPTION	TEST CONDITIONS	REQUIREMENTS	
NCE	1	Visual Examination	By visual examination check without any out pressure & testing.	There shall be no defects that affect the serviceability of the product.	
: PERFORMANCE	2	①To be measured between the two terminals associated with each switch pole. Resistance ②Measurements shall be made with a 1kHz shall current contact resistance meter.		50mΩ max. (initial)	
ELECTRIC	3	Insulation Resistance 500V DC, 1 minute ± 5 sec.		100MΩ min.	
ELEC	4	Dielectric withstanding Voltage 500V AC (50Hz or 60 Hz) shall be applied between all the adjacent terminals and between the terminal and the frame for 1 minute.		There shall be no breakdown or flashover.	
	5	5 Capacitance 1 MHz ± 10 kHz		5 pF max.	
MECHANICAL PERFORMANCE	Applied in the direction of operation. ON→OFF OFF→ON Force OPE Applied in the direction of operation. 1000gf (9.8N m		1000gf max (9.8N max)		

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	7	Stop Strength	A static load of 1 operating direction operated for a pe	n and pulling	There shall be no sign of damage mechanically.			
			1.Soldering Temp	erature :				
			PROD SERIES TEMP TIME					
		Soldering	THROUGH HOLE TYPE NDI(R)-V	260 °C±5°C	5±1 sec.			
	8	Heat Resistance	SMT TYPE DM(R) \ DL(R)-V		AGE 4/4	As shown in item 2~6		
PERFORMANCE			2.Duration of Solder Immersion: 5±1 sec. 3.Frequency of Soldering Process: 2 times max. (PCB is 1.6mm in thickness.)					
	9	Vibration	Shall be vibrated in accordance with Method 201A of MIL-STD-202F ①Frequency: 10-55-10 Hz 1 min/cycle. ②Direction: 3 vertical directions including the direction of operation. ③Test Time: 2 hours each direction.			As shown in item 2~6		
MECHANICAL	10	Shock	Shall be shocked in accordance with Method 213B condition A of MIL-STD-202F ①Acceleration: 50G. ②Action Time: 11 ± 1 m sec. ③Testing Direction: 6 sides. ④Test cycle: 3 times in each direction			As shown in item 2~6		
	11	Solderability	 THROUGH HOLE TYPE Soldering Temperature: 245±3°C Lead-Free solder: M705E JIS Z 3282 Class A (Tin 96.5%, Silver 3%, Copper 0.5%) ②Flux: 5-10 seconds. ③Duration of solder Immersion: 3±0.5 sec. ④ SMT TYPE SEE PAGE 4/4 			No anti-soldering and the coverage of dipping into solder must more than 75% was requested.		

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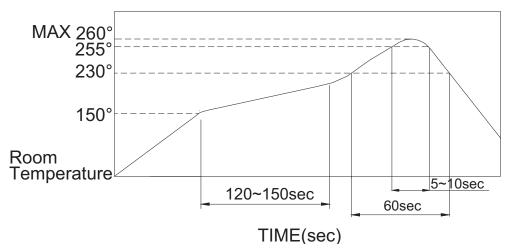
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DURABILITY	12	Measurements shall be made following the test set forth below: ①25 mA, 24V DC resistive load ②Rate of Operation: 15~20 cycles/ minute ③Cycle of Operation: 2000 cycles.		1.As show in item 3,4 2.Contact Resistance: 100mΩ max. (final-after test)	
WEATHER-PROOF	13	Resistance Low Temperature Temperature Temperature Temperature Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made: 1.Temperature: -40°C±3°C 2.Time: 96 hours		As shown in item 2~6	
	14	Resistance High Temperature	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made: 1.Temperature: 85°C±2°C 2.Time: 96 hours	1.As shown in item 3~6 2.Contact Resistance: 100mΩ max.	
WEA	15	Resistance Humidity	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before measurements are made: ①Temperature: 40°C±2°C ②Relative Humidity:90~95% ③Time: 96 hours	1.As shown in item 4,62.Contact Resistance:100mΩ max.3.Insulation Resistance:10MΩ min.	

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5. SOLDERING CONDITIONS:

■ Condition for Soldering –DM(R) · DL(R) –V Series



■ The condition mentioned above is the temperature on the Cu foil of the P.C.B surface.

There are cases where board's temperature greatly differs from switch's surface temperature depending on board's material, size, thickness, etc. Care, therefore, should be used not to allow switch's surface temperature to exceed 260°C.

■ Manual Soldering

Soldering Temperature	Max.350°C
Continuous Soldering Time	Max. 5 seconds

■ Precautions in Handling

- 1. Care should be exercised so that flux from the upper part of the printed circuit board does not adhere to the switch.
- 2. Don't clean the switch body except with top tape sealed type, which can only spray of cleaning method from top of s/w.
- 3. Please make sure that there is no flux rose over the surface of the PCB

