

NEW



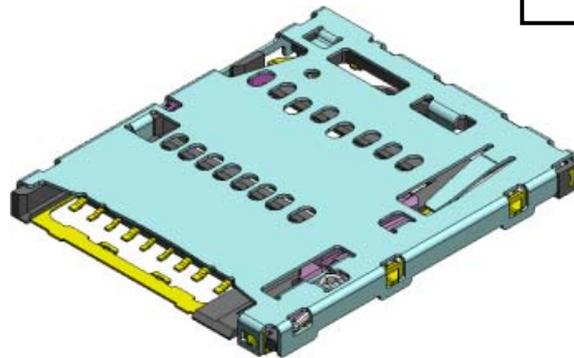
UHS-II Compatible microSD™ Card Connector CONNECTOR

ST50 Series

MB-0325-1

December 2017

RoHS Compliant



Outline

MicroSD cards are widely used as an external storage medium for compact devices such as smartphones, cameras, tablets and notebook PCs.

Recently high-speed reading and writing requirements are increasing to allow the transfer of large image and video files, and also to install and run apps (applications) on smartphones.

Due to the increasing user demand, microSD cards compatible with the memory card standard UHS-II with maximum data writing speed up to 312MB/s, are becoming widespread.

The ST50 Series is a push-push connector compatible with the UHS-II microSD cards.

* microSD™ is a trademark of SD Association.

Features

- Compatible with microSD card Ultra High Speed data transfer standard UHS-II. (Backwards compatible with UHS-I microSD card and other existing microSD cards)
- Compact slim design, 16.3mm depth, 13.7mm width, 1.35mm height
- Push-push type card eject method.
- Maintaining good operability with the long card eject length (3.0mm min.)
- Includes card detection switch (normally-closed types)
- 8-point hold downs for heat-emission.

General Specifications

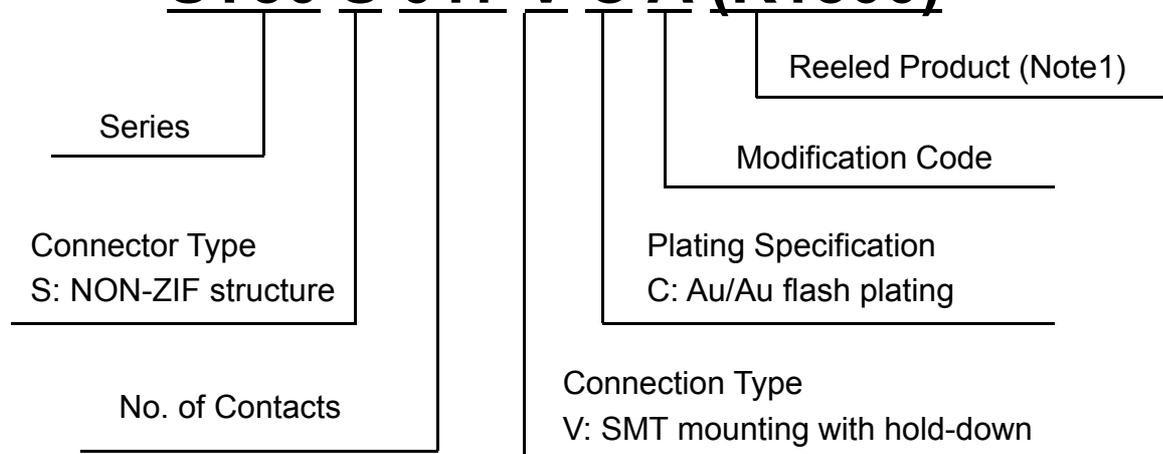
- | | |
|--|---------------------------|
| ■ No. of Contacts: 17 pos. | ■ Rated Current: 0.5A |
| ■ Contact Resistance: 100mΩ max. (initial) | ■ Rated Voltage: 10V |
| ■ Dielectric Withstanding Voltage:
AC500Vr.m.s for 1 minute | ■ Durability: 5,000 times |
| ■ Operating Temperature: -25° C ~ +85° C | |

Materials and Finishes

Component	Material	Finish
Signal Contact	Copper alloy	Au plating over Ni (Contact area) Au plating over Ni (Board mounting area)
Housing	Heat-resistant plastic	
Cover Frame	Stainless steel	Au plating over Ni (Board mounting area)
Detection Switch	Copper alloy	Au plating over Ni (Contact area) Au plating over Ni (Board mounting area)
VDD2 Switch	Copper alloy	Au plating over Ni (Contact area) Au plating over Ni (Board mounting area)
Eject Bar	Heat-resistant plastic	
Lock	Stainless steel	
Spring	Stainless steel	
Cam Follower	Stainless steel	

Ordering Information

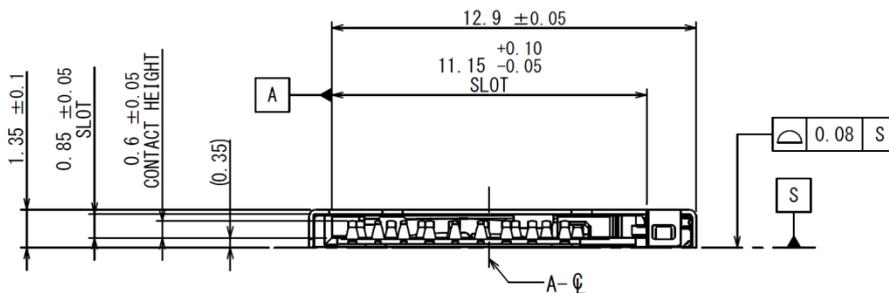
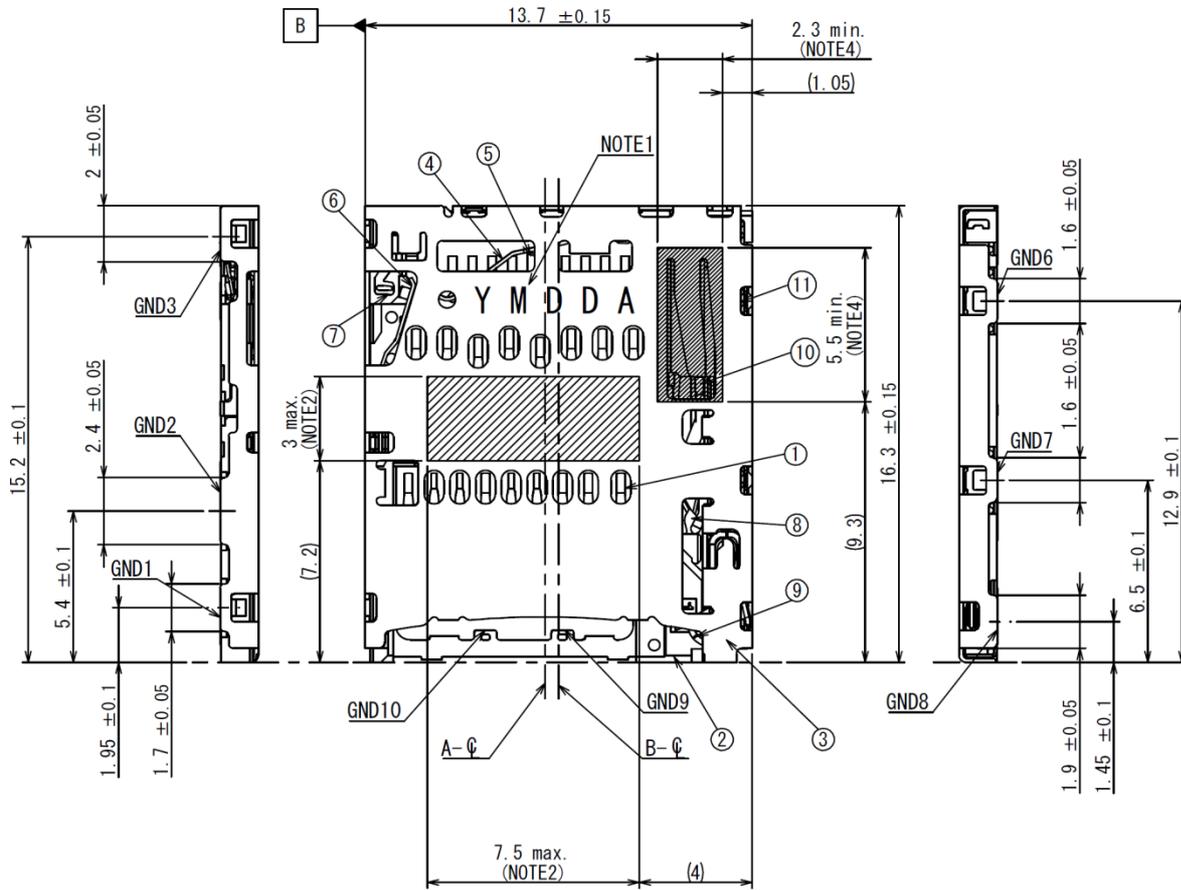
ST50 S 017 V C A (R1800)



Note) An embossed tape reel contains 1,800 pcs.

Please contact us for details on embossed tape specifications.

Part Number	Drawing No.
ST50S17VCA	SJ117915

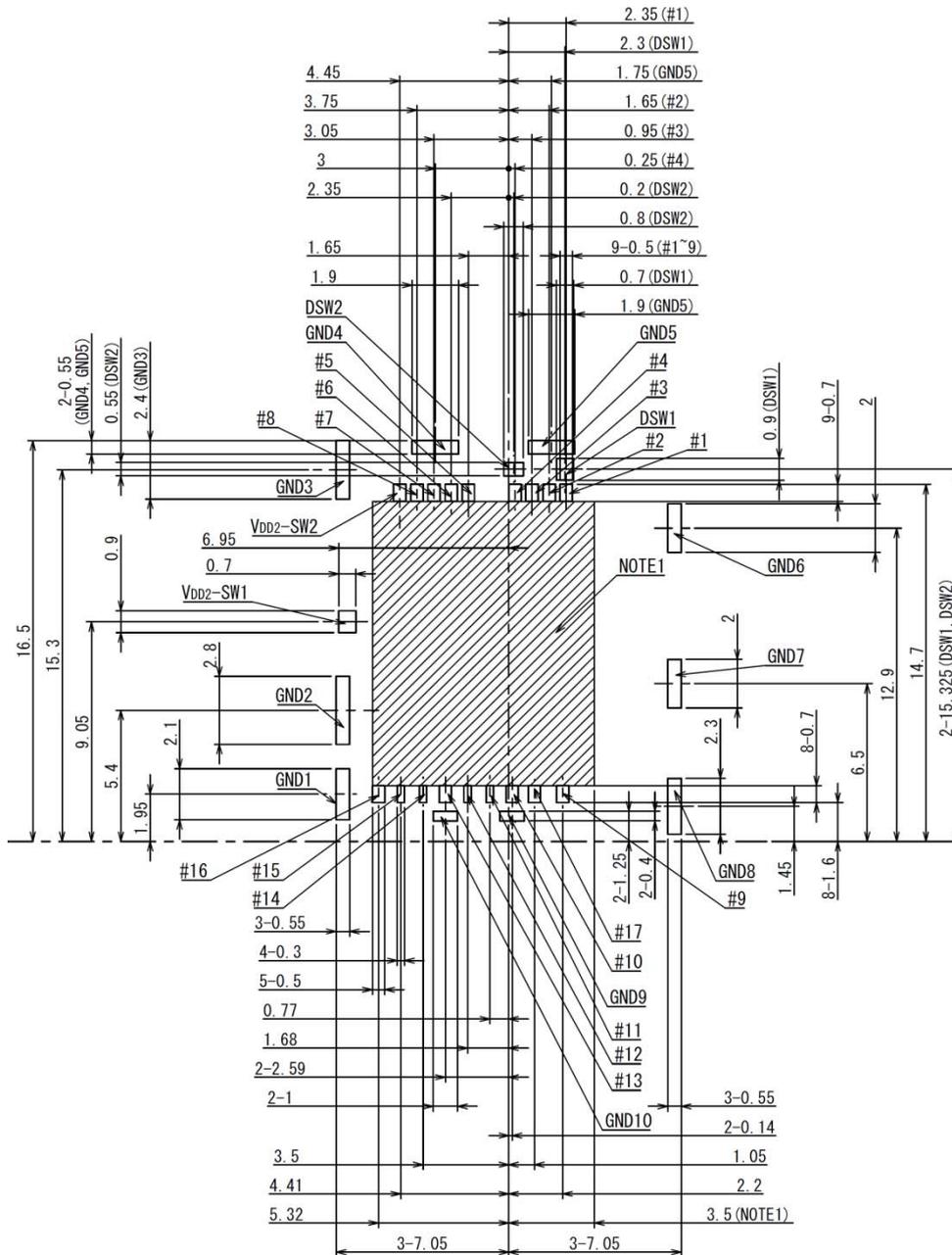


NOTE1. NO PATTERN, VIA HOLE IN THIS AREA.
 NOTE2. VACUUM AREA.
 NOTE4. LOAD SHOULD NOT BE APPLIED ON THIS AREA.

Unit : mm

符号 NO.	名称 DESCRIPTION	个数 QTY.	材料 MATERIAL	仕上 FINISH	備考 REMARKS
11	COIL SPRING	1	STAINLESS(Φ0.2)	-	
10	CAM FOLLOWER	1	STAINLESS(Φ0.3)	-	
9	LOCK	1	STAINLESS(t0.2)	-	
8	EJECT BAR	1	LCP	-	COLOR:BLACK
7	VDD2-SW2	1	COPPER ALLOY(t0.1)	Contact: Au(0.3 μm UP) over Ni(1 μm UP) Terminal: Au(0.03 μm UP) over Ni(1 μm UP)	
6	VDD2-SW1	1	COPPER ALLOY(t0.12)	Contact: Au(0.3 μm UP) over Ni(1 μm UP) Terminal: Au(0.03 μm UP) over Ni(1 μm UP)	
5	DETECTION SW2	1	COPPER ALLOY(t0.1)	Contact: Au(0.3 μm UP) over Ni(1 μm UP) Terminal: Au(0.03 μm UP) over Ni(1 μm UP)	
4	DETECTION SW1 (GND)	1	COPPER ALLOY(t0.12)	Contact: Au(0.3 μm UP) over Ni(1 μm UP) Terminal: Au(0.03 μm UP) over Ni(1 μm UP)	
3	COVER FRAME	1	STAINLESS(t0.15)	Terminal: Au(0.03 μm UP) over Ni(1 μm UP)	
2	HOUSING	1	LCP	-	COLOR:BLACK
1	CONTACT	1	COPPER ALLOY(t0.1)	Contact: Au(0.5 μm UP) over Ni(2 μm UP) Terminal: Au(0.03 μm UP) over Ni(1 μm UP)	

Note: Above drawing is for reference only.
 Please refer to the most updated drawing when considering use of this product.



Applicable Board Dimensions

Unit : mm

NOTE1. NO PATTERN, VIA HOLE IN THIS AREA.

PIN ASSIGNMENT

Pin#	Name
1	DAT2
2	CD/DAT3
3	CMD
4	V _{DD1}
5	CLK
6	V _{SS}
7	DATORCLK+
8	DAT1RCLK-
9	V _{DD2}
10	V _{SS}
11	DO+
12	DO-
13	V _{SS}
14	D1-
15	D1+
16	V _{SS}
17	SWIO

TABLE 2 DETECTION SW CIRCUIT

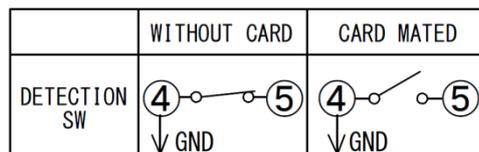
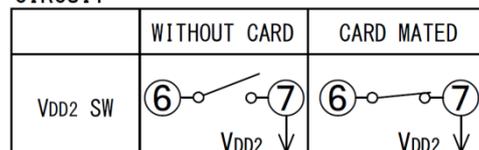


TABLE 3 V_{DD2} SW CIRCUIT



Note: Above drawing is for reference only.
Please refer to the most updated drawing when considering use of this product.

Technical Documents

Part Number	ST50S017VCAR1800
Drawing No.	Individual Product: SJ117915 Reeled Product: SJ117916
Specifications	JACS-11173
Handling Instructions	J AHL-11173

Notice:

1. The values specified in this brochure are only for reference. The products and their specifications are subject to change without notice. Contact our sales staff for further information before considering or ordering any of our products. For purchase, a product specification must be agreed upon.

2. Users are requested to provide protection circuits and redundancy circuits to ensure safety of the equipment, and sufficiently review the suitability of JAE's products to the equipment.

3. The products presented in this brochure are designed for the uses recommended below. We strongly suggest you contact our sales staff when considering use of any of the products in any other way than the recommended applications or for a specific use that requires an extremely high reliability.

(1) Applications that require consultation:

(i) Please contact us if you are considering use involving a quality assurance program that you specify or that is peculiar to the industry, such as:

Automotive electrical components, train control, telecommunications devices (mainline), traffic light control, electric power, combustion control, fire prevention or security systems, disaster prevention equipment, etc.

(ii) We may separately give you our support with a quality assurance program that you specify, when you think of a use such as :

Aviation or space equipment, submarine repeaters, nuclear power control systems, medical equipment for life support, etc.

(2) Recommended applications include:

Computers, office appliances, telecommunications devices (terminals, mobile units), measuring equipment, audiovisual equipment, home electric appliances, factory automation equipment, etc.

Japan Aviation Electronics Industry, Limited

Product Marketing Division

Aobadai Building, 3-1-19, Aobadai, Meguro-ku, Tokyo 153-8539

Phone: +81-3-3780-2882 FAX: +81-3-3780-2946

* The specifications in this brochure are subject to change without notice. Please contact JAE for information.