

Customer : ALPS ELECTRIC EUROPA GmbH

No. F3853442M

Date : Nov. 16, 1994

Attention:

Your ref. No:

Your Part. No: STRSAOK02

SPECIFICATIONS

ALPS :

MODEL RSAOK11A1
(10KB)

Spec. No. :

Sample No. : F3853442M

RECEIPT STATUS

RECEIVED

By. Date

Signature

Name

Title

ALPS ELECTRIC CO., LTD.

HEAD OFFICE
1-7, YUKIGAYA-OHTSUKA-CHO,
OHTA-KU, TOKYO 145 JAPAN

DSG'D

APP'D

ENG. DEPT. DIVISION

Sales

SPECIFICATIONS

1. THIS SPECIFICATIONS APPLY TO RSAOK11A1 POTENTIOMETERS.

2. CONTENTS OF THIS SPECIFICATIONS.

4SA01M0054
4S0001-200M, 4S0001-202M
SA01MA103

3. MARKING

• MARKING ON ALL UNITS
DATE CODE, RESIST. VALUE, TAPER, TRADE MARK

CLASS.NO.		TITLE MASTER TYPE POTENTIOMETER (SLIDE)																
1. Environment 一般事項 1. 1 Operating temperature range 使用温度範囲 -10~60°C 1. 2 Storage temperature range 保存温度範囲 -30~70°C 1. 3 Test conditions 試験条件 Unless otherwise specified, the standard range of atmospheric conditions for making measurements and test is as follows. Ambient temperature : 5c to 35°C Relative humidity : 45% to 85% Air pressure : 860mbar to 1060 mbar. If there is any doubt about the results, measurements shall be made within the following limits, Ambient temperature : 20±2°C Relative humidity : 60 to 70% Air pressure : 860mbar to 1060 mbar. 試験及び測定は特に規定がない限り温度 5 ~ 35°C、 相対湿度 45 ~ 85%、気圧 860 ~ 1060 mbar の標準状態のもとで行う。 ただし、判定に疑義を生じた場合は 温度 20 ± 2 °C、 相対湿度 65 ± 5 %、気圧 860 ~ 1060 mbar にて行う。																		
2. Appearance 外 観 The potentiometer shall be well done and not have any excessive rust, crack, split, poor plating and discolor in any portion. 各部の仕上げは良好で機能上有害なサビ、キズ、ワレ、メッキ不良及び剥離などがあってはならない。																		
3. Electrical characteristics 電気的性能 <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Item 項 目</th> <th style="width: 40%;">Conditions 条 件</th> <th style="width: 50%;">Specifications 規 格</th> </tr> </thead> <tbody> <tr> <td>3. 1 Nominal total resistance and tolerance 公称全抵抗値および許容差</td> <td>Measurement shall be made by the resistance between terminal 1 and 3 with lever set at terminal 1 or 3. レバーを端子 1 または、3 の終端におき、抵抗器の端子 1 - 3 間の抵抗値を測定する。</td> <td style="text-align: center; font-size: 1.2em;">10 K Ω ± 20%</td> </tr> <tr> <td>3. 2 Power rating 定格電力</td> <td>Power rating is based on continuous full load operation at the maximum voltage between terminals 1 and 3. Power rating vs. ambient temperature shall be denoted on the following graph. 端子 1 と 3 の間に連続負荷することができる最大電力。周囲温度に対する電力軽減曲線は右図とする。 Power Rating (W) Ambient temperature (°C) </td> <td style="text-align: center; font-size: 1.2em;">0.5 w</td> </tr> <tr> <td>3. 3 Rated voltage 定格電圧</td> <td>Rated voltage E = √PR (V) P : Power rating 定格電力 (W) R : Nominal total resistance 公称全抵抗値 (Ω) When the rated voltage exceeds the maximum operating voltage, the maximum operating voltage shall be the rated voltage. ただし、定格電圧が最高使用電圧を越える場合は、この最高使用電圧を定格電圧とする。</td> <td> △ D.C. 20 v △ A.C. 500 v </td> </tr> <tr> <td>3. 4 Resistance law (Taper) 抵抗変化特性</td> <td>Measurement shall be made by the resistance law method, 電圧法にて測定 Measurement shall be made at the position of right diagram from the edge at the side of terminal 1. When based on terminal 3, from the edge at the side of terminal 3. Output voltage between terminals 1 and 2 / Applied voltage between terminals 1 and 3 × 100 (%) 1-2 端子間出力電圧 / 1-3 端子間印加電圧 × 100 (%) Output voltage between terminals 1 and 2 / Applied voltage between terminals 1 and 3 (dB) 20 log (1-2 端子間出力電圧 / 1-3 端子間印加電圧) (dB)</td> <td> 50 ± 0.5mm ± 0.5mm ± 0.5mm ± 0.5mm ± 0.5mm ± 0.5mm ± 0.5mm 45 ~ 55 Unit (単位) □ % ▬ dB TAPERED CURVE ALPS "B" (SBS68) </td> </tr> </tbody> </table>				Item 項 目	Conditions 条 件	Specifications 規 格	3. 1 Nominal total resistance and tolerance 公称全抵抗値および許容差	Measurement shall be made by the resistance between terminal 1 and 3 with lever set at terminal 1 or 3. レバーを端子 1 または、3 の終端におき、抵抗器の端子 1 - 3 間の抵抗値を測定する。	10 K Ω ± 20%	3. 2 Power rating 定格電力	Power rating is based on continuous full load operation at the maximum voltage between terminals 1 and 3. Power rating vs. ambient temperature shall be denoted on the following graph. 端子 1 と 3 の間に連続負荷することができる最大電力。周囲温度に対する電力軽減曲線は右図とする。 Power Rating (W) Ambient temperature (°C)	0.5 w	3. 3 Rated voltage 定格電圧	Rated voltage E = √PR (V) P : Power rating 定格電力 (W) R : Nominal total resistance 公称全抵抗値 (Ω) When the rated voltage exceeds the maximum operating voltage, the maximum operating voltage shall be the rated voltage. ただし、定格電圧が最高使用電圧を越える場合は、この最高使用電圧を定格電圧とする。	△ D.C. 20 v △ A.C. 500 v	3. 4 Resistance law (Taper) 抵抗変化特性	Measurement shall be made by the resistance law method, 電圧法にて測定 Measurement shall be made at the position of right diagram from the edge at the side of terminal 1. When based on terminal 3, from the edge at the side of terminal 3. Output voltage between terminals 1 and 2 / Applied voltage between terminals 1 and 3 × 100 (%) 1-2 端子間出力電圧 / 1-3 端子間印加電圧 × 100 (%) Output voltage between terminals 1 and 2 / Applied voltage between terminals 1 and 3 (dB) 20 log (1-2 端子間出力電圧 / 1-3 端子間印加電圧) (dB)	50 ± 0.5mm ± 0.5mm ± 0.5mm ± 0.5mm ± 0.5mm ± 0.5mm ± 0.5mm 45 ~ 55 Unit (単位) □ % ▬ dB TAPERED CURVE ALPS "B" (SBS68)
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APPD. <i>Jul. 27 '90</i>	CHKD. <i>Jul. 27 '90</i>	DSGD. <i>Jul. 27 '90</i>
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ALPS ELECTRIC CO., LTD.

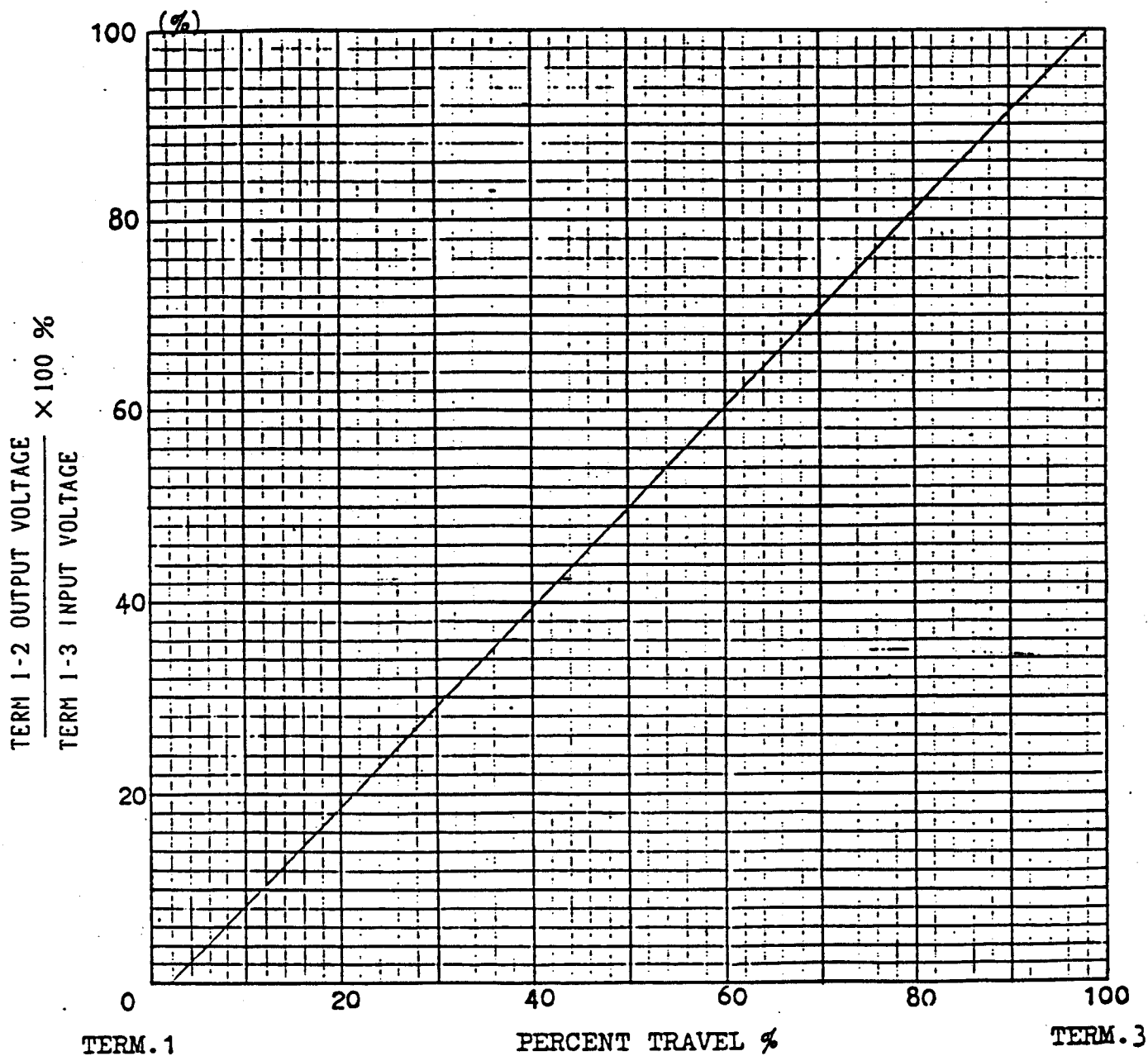
TITLE SPECIFICATIONS

DOCUMENT NO. 4SA01M0054 (1/4)

SYMB. <i>Δ 2</i>	DATE <i>91.01.14</i>	APPD. <i>G.A.</i>	CHKD. <i>K.N.</i>
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USED ON	100 mm TRAVEL TYPE	NAME	RESISTANCE TAPER
	ALPS ELECTRIC CO., LTD. 1-7 YUKIGAYA OTSUKA-CHO OTA-KU TOKYO JAPAN	TITLE	SPECIFICATIONS

TAPERED CURVE: ALPS "B"



NOTES: PERCENT VOLTAGE
CHECK POINT

50 % TRAVEL FROM TERM.1

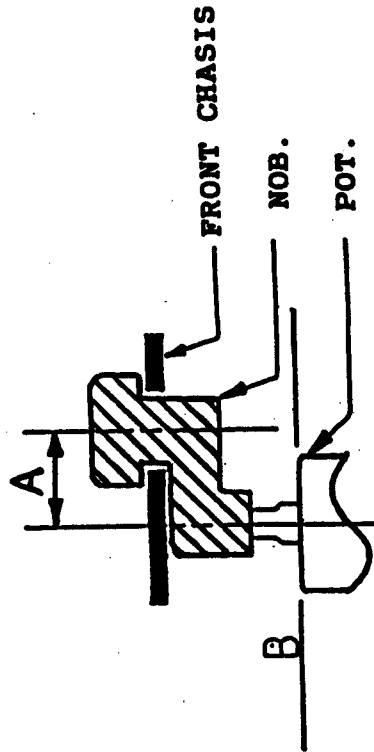
TOLERANCE

45 - 55 %

APPD.	CHKD.	DSGD.	NAME
Jan. 29 '92	Jan. 29 '92	Jan. 29 '92	RESISTANCE TAPER
Original	Jan. 26 '90 M.I.	S.S.	DWG. NO. SBS68
SYMB.	DATE	APPD.	CHKD.
		M. Inoue	Matsumura
		T. Kumagai	

PRECAUTION IN USE

- 1.If it will be used the operating point away from the center line of the lever, it should be shorter as possible.
- 2.About the length of lever
If conditions permit, it is advisable to use the shortest possible lever.The longer the length up to operating point, the more unfavorable slide feeling will be given.



- 3.Regarding the operation of the lever,please consider the above mentioned,and make sure nothing is wrong with the operation under installing in your appliance that you plan to use our products actually.

ALPS ELECTRIC CO., LTD.

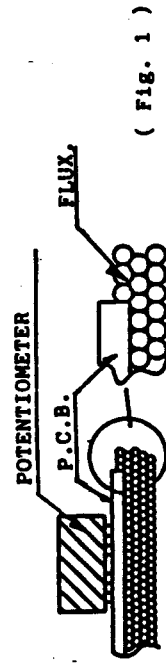
APPD.	CHKD.	DSGD.
Aug. 10 '91	Aug. 9 '91	Aug. 9 '91
Y. Nishida	Y. Nishida	Y. Nishida
DATE	DATE	DATE
APR	APR	APR
CHD	CHD	CHD
NOB	NOB	NOB
POT	POT	POT
SLIDE POTENTIOMETER		
DOCUMENT NO.		
4S0001-200M		

OR

FOLLOW THE NEXT CONDITIONS FOR SOLDERING

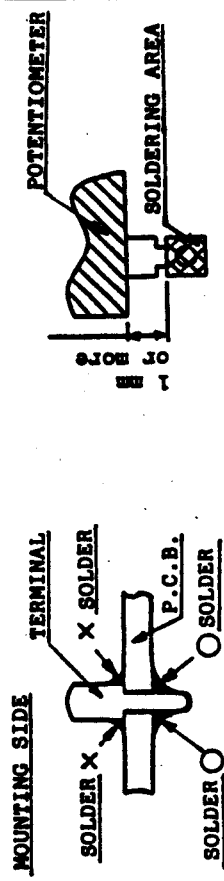
5. Matters to Be Noted
- (1) Do not add any stress on terminals in the case of soldering. For instance, forced movement of potentiometer with terminals being heated may probably deteriorate the electric features due to generation of looseness in connection between resistant board and terminals.
 - (2) Use caution to soldering process so as to prevent solder from rising up to the surface of printed board on the side of installing potentiometer, because defective contact may take place in terminal connecting part due to soldering heat (Fig. 2)
 - (3) In the case of lead wiring, solder it so that a gap of 1 mm or more may be reserved between the potentiometer body and soldering part. (Fig. 3)
 - (4) The grade of influence of soldering exerted on the potentiometer depends upon the size of a printed board, installing position of the potentiometer, and the size of a solder bath etc. Therefore, make sure, in advance, of no abnormal state under the conditions of soldering to be carried out at present.

- 1. Solder
63 % Sn solder specified in JIS Z3282.
- 2. Board in Use
Single-face copper laid laminate board.
Plate thickness (t) = 1.6 mm
- 3. In the Case of Dip Soldering
 - (1) State of potentiometer
Position a lever in the vicinity of center.
 - (2) Specific Gravity of Flux
0.83±0.01 (foaming type)
 - (3) Height of Flux face
A level of the upper face of flux for reaching the position at a half of the plate thickness of printed board. (Fig.1)
Further, no flow of flux invading on the surface of printed board on the side of installing potentiometer is allowed.



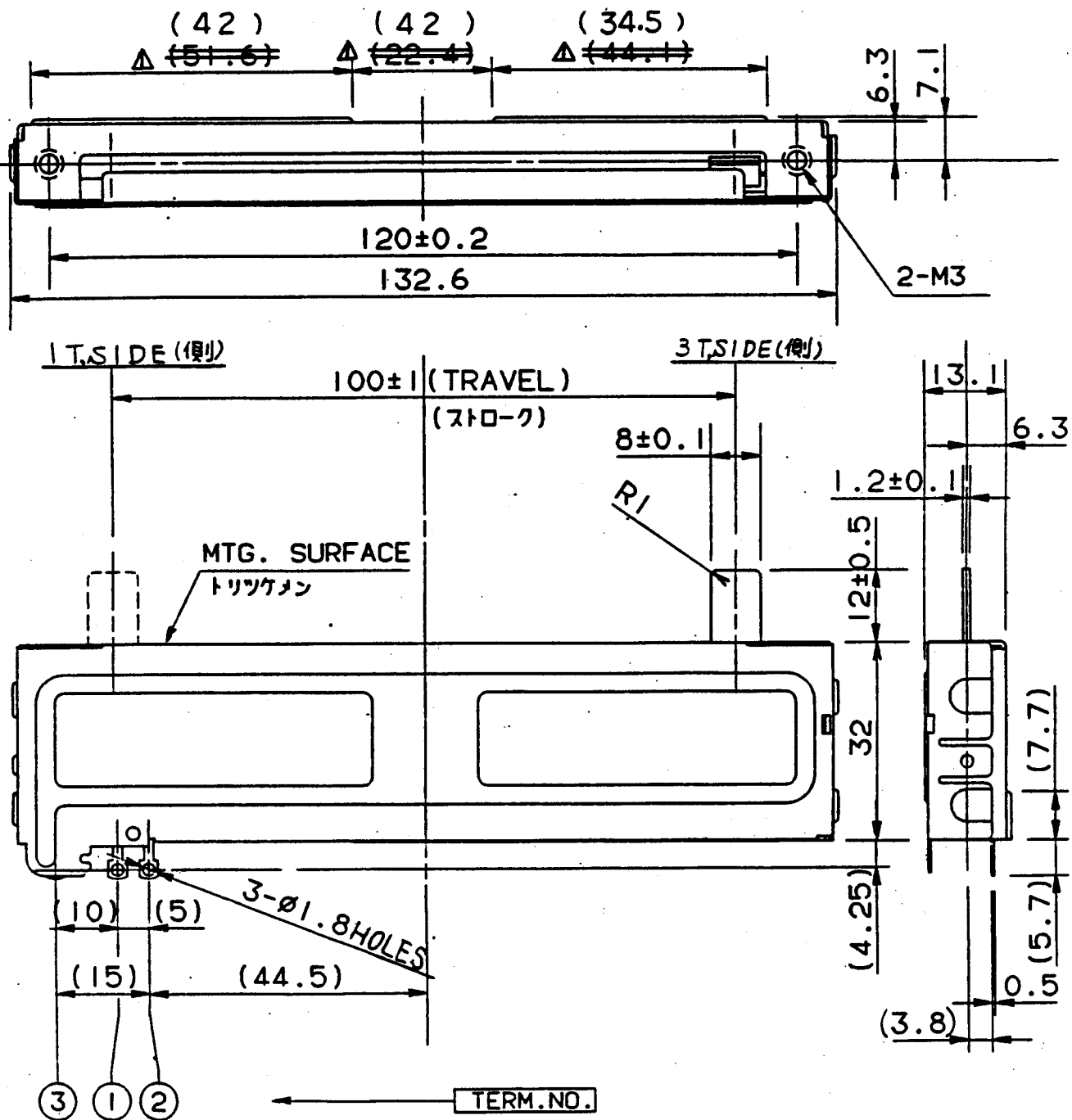
- (4) Preheat Condition
100°C MAX., within 1 minute
(Temperature on the side of installing printed board is designated.)
- (5) Soldering Condition
 - Solder temperature; 260°C MAX.
 - Soldering period ; within 5 seconds
 - Time of soldering ; only one time is permitted

- 4. In the Case of Manual Soldering
 - Solder temperature ; 300°C MAX.
 - Soldering period ; within 3 seconds
 - Time of soldering ; only one time is permitted



(Fig. 3)

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APPD.	CHKD.	DSGD.	TITLE							
Sep 9 '91	Sep 9 '91	Sep 6 '91	SLIDE POTENTIOMETER							
DATE	APPR.	CHKD.	DSGD.	DOCUMENT NO.						
				450001 - 202M						



NOTE 1. MOUNTING SCREW THREAD LENGTH IS CHASSIS THICKNESS+4MM MAX.

1. トリツケヨウ ネジ / クビスタナガサハ
シャーシタアツ+4MM イカ トスル。

TOLERANCES UNLESS OTHERWISE SPEC		
BASIC	DIMENSIONS	TOLERANCES
UP TO	10	±0.3
ABOVE 10 TO 100		±0.5
ABOVE 100		±0.8
ANGULAR	DIMENSION	± 5°

PART NO.	NAME	MATERIAL NAME / CODE	FINISH
ALPS ELECTRIC CO., LTD.			
DSGD. 77713-7900902		SCALE 1:1	TITLE MASTER TYPE
K. TAKAHASHI NOV. 30 '88			SLIDE POTENTIOMETER
CHKD.			100MM SINGLE UNIT
T. Nakashima Dec. 1 '88			100mm 9 9mm
APPD.			77713-7900902
T. Nakashima Dec. 1 '88		UNIT mm	DOCUMENT NO.
SYMB			SAO1MA103

⑤
1-12L
1991/1/17

ORI