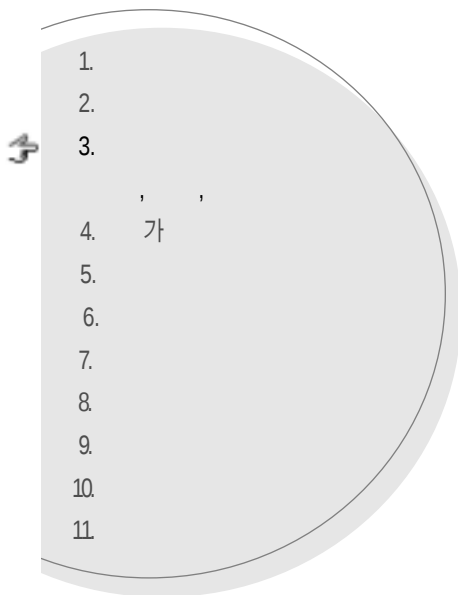




(9)

李 義 平
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CONTENTS



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(1)

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< 3-42>

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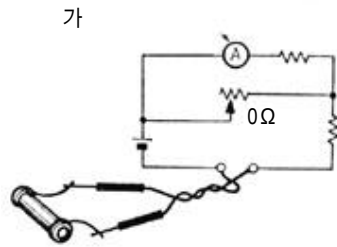
.

가

가

< 4-43>.

0Ω



< 3-42> 가



< >

가

(2)

MΩ

MΩ

(

가



< 3-43>

3V

1MΩ

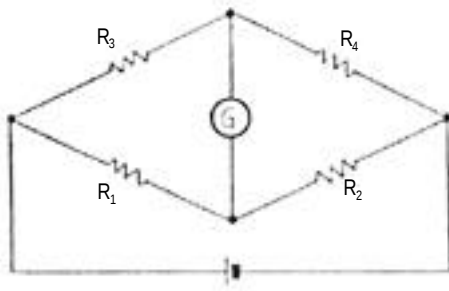
1.5V

20MΩ
100V, 5,000MΩ
2,000V

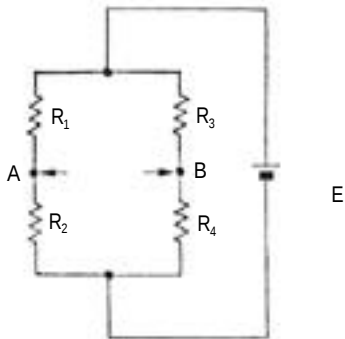
6V

(DC-DC

)



< 3-44>



< 3-45>

(3)

$R_1 \quad R_4 \quad R_2 \quad R_3$
 가
 $R_1 \times R_4 = R_2 \times R_3$
 가
 . < 3-45>
 가
 가
 A B A ~ B

E 2

$$A = \frac{R_2}{R_1 + R_2} \times E$$

$$B = \frac{R_4}{R_3 + R_4} \times E$$

2

$$\frac{R_2}{R_1 + R_2} = \frac{R_4}{R_3 + R_4}$$

$$R_2(R_3 + R_4) = R_4(R_1 + R_2)$$

$$R_1 \times R_4 = R_2 \times R_3$$

가

가

가

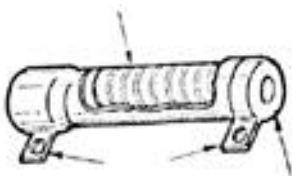
< 3-44>

(

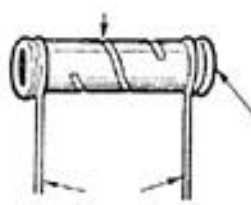
)

가
 $R_2 \quad R_3, R_4$ 가
 R_1
 4
 3
 1

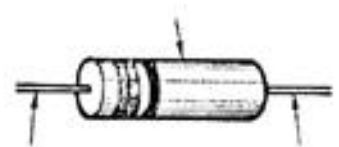
가 0 가 가 가 0 가 가 0 가 0 가 () () 가) (8. (1) 3-46> 가 가 가 1/8 10 가 가 2 0.1mm 1,300Ω 가 10m 50MΩ 가 2 100MΩ 가



(a)



(b)



(c)

< 3-46>

< 3-1>



	1	2	3	4
	0	0	1	
	1	1	10	
	2	2	10 ²	
	3	3	10 ³	
	4	4	10 ⁴	
	5	5	10 ⁵	
	6	6	10 ⁶	
	7	7	10 ⁷	
	8	8	10 ⁸	
	9	9	10 ⁹	
			10 ⁻¹	± 5%
			10 ⁻²	± 10%
				± 20%

< 3-2>

± 5%	± 10%	± 20
10	10	10
11	-	-
12	12	-
13	-	-
15	15	15
16	-	-
18	18	-
20	-	-
22	22	22
24	-	-
27	27	-
30	-	-
33	33	33
36	-	-
39	39	-
43	-	-
47	47	47
51	-	-
56	56	-
62	-	-
68	68	68
75	-	-
82	82	-
91	-	-
100	100	100

Ω kΩ ()

(2)

가
가

가

가

가 < 3-1>

$$\begin{aligned}
 & \frac{1}{4} \times 10^2 \times 10^3 \times 10^0 \times 10^{-2} \\
 & = 0.01 \Omega \times 12 \text{가} \times 99 \times 10^9 \Omega = 99,000 \text{M}\Omega
 \end{aligned}$$

가

$$68 \times 10^2 \Omega = 6,800 \Omega$$

6.8k Ω 33k Ω $\pm 10\%$ 가

TV

(

)

가

가

<

(가

)가

<

3-47>

3-2>

10

100

가

(

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가

가

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< 3-2>

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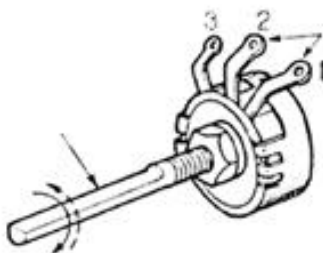
TV

가가

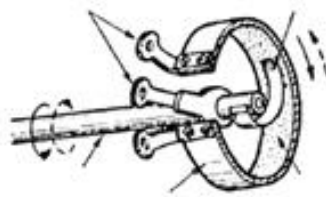
가

(3) 가

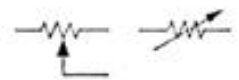
가

 Ω M Ω 

(a)

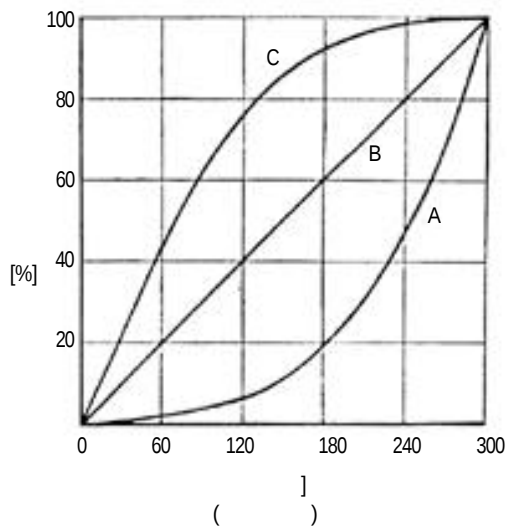


(b)

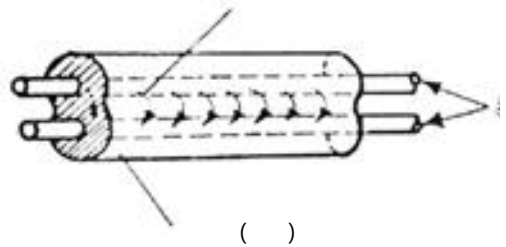


(c)

< 3-47> 가



< 3-48> 가



< 3-49>

가

(4)

가

가

가

1kΩ 가

가

500Ω

가

가

가

가

가

가

< 3-48>
B , A , C

가

가

가

< 3-49>

가

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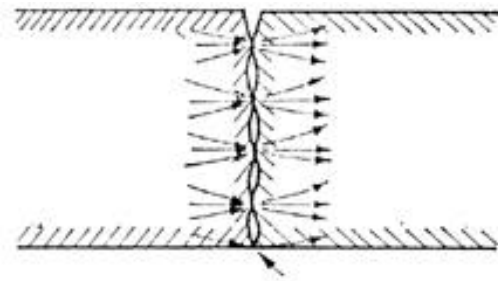
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(5)

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< 3-50>

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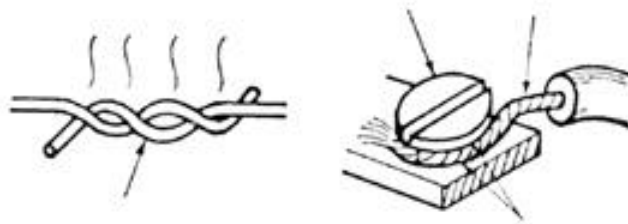
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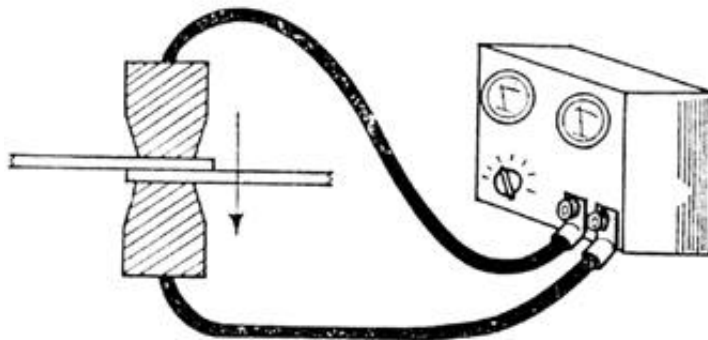
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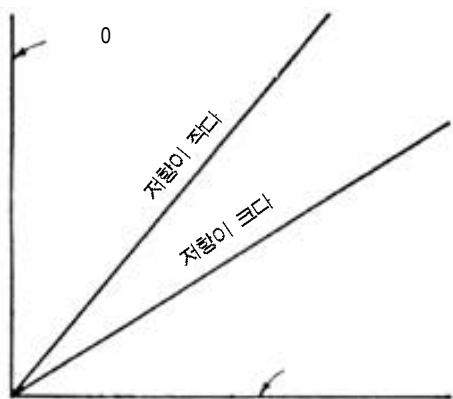
MQ



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< 3-52>



< 3-53>

가 가

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9.

(1)

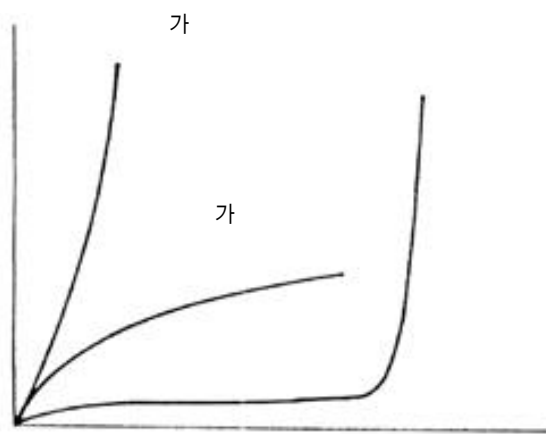
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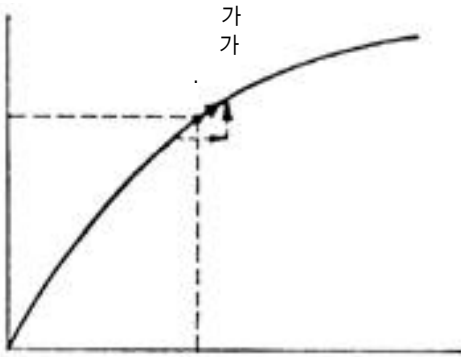
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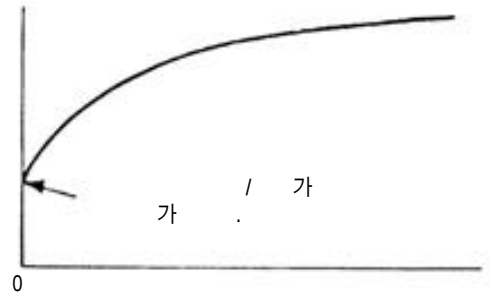


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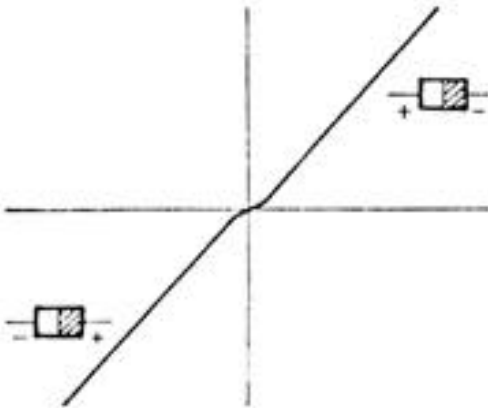
가



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< 3-57>



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< 3-56>

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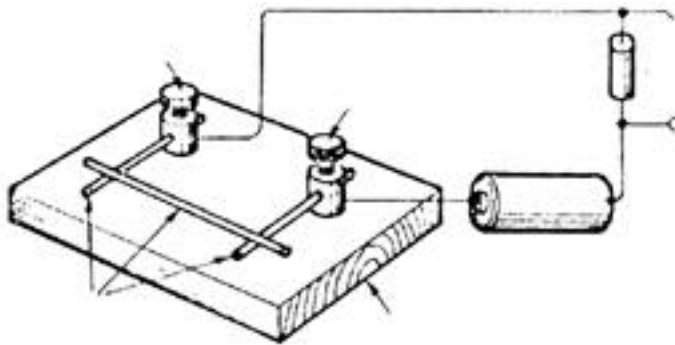
가

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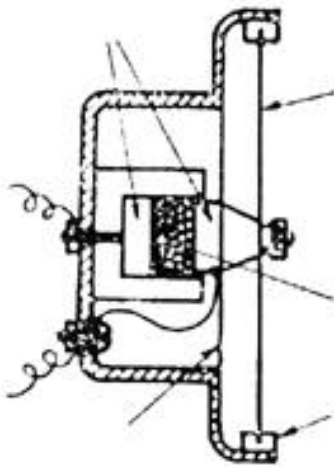
< 3-54>

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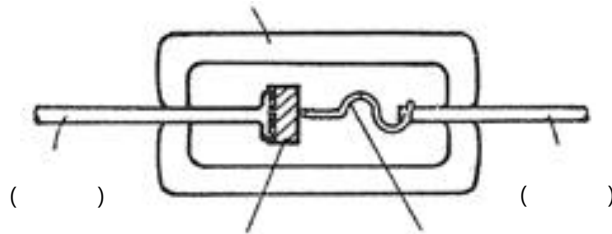
2

가

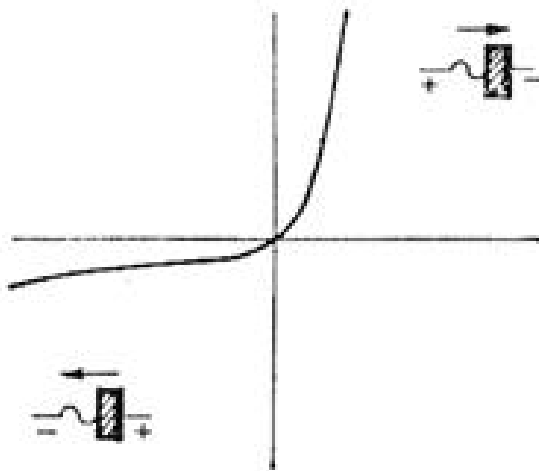
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