



**DAEWOO**  
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# **SPECIFICATION**

**FOR**  
**DAEWOO MAGNETRON**  
**R M 2 5 9**

A handwritten signature in black ink, appearing to be 'Dung-Ju Jeong', written over a horizontal line.

**DUNG-JU JEONG**

**GENERAL MANAGER**  
**MAGNETRON PLANTS**

RM259

## ELECTRICAL SPECIFICATION

This specification is based upon EIAJ ED-1501 Testing Methods for Continuous Wave Magnetrons

## DAEWOO CONTINUOUS WAVE MAGNETRON RM259

DESCRIPTION	Magnetron (Fixed Frequency, Integral Magnet)									
FUNCTION	For Microwave Oven (2450MHz Band continuous wave oscillation)									
OUTER DIMENSIONS	See Outline drawing									
ABSOLUTE MAXIMUM RATINGS									NOTE(4)(5)	NOTE(4)
	TERM	Ef	tk	Ebm	Ib	Ibm	Pin	$\sigma_L$	Tp	T case
	UNIT	V	sec	kV	mAdc	A	kW	-	°C	°C
	MAX.	3.75	-	4.5	400	1.4	1.6	4	250	100
	MIN.	2.80	0	-	-	-	-	-	-	-
STANDARD TEST CONDITION	NOTE (1)(2)(3)	3.30	-	-	350	-	-	1.1MAX	-	-

## TEST SPECIFICATION

TEST TERM NOTE (8)	TEST METHOD EIAJ ED-1501	TEST CONDITION	SYMBOL	BOGIE	LIMIT		UNIT	
					MIN.	MAX.		
*** VIBRATION	5.4.1		-	-	-	-	-	
** BREAK DOWN VOLTAGE	4.2	NOTE (6)	-	-	-	-	-	
* INSULATION	4.2	Eb=1kVdc R.H.MAX. 60%	-	-	100	-	M $\Omega$	
* FILAMENT CURRENT	4.1.1	tk=120sec	If	10	8	12	A	
PEAK ANODE VOLTAGE	4.3.1	NOTE (7)	Ebm	4.0	3.8	4.2	kV	
AVERAGE POWER OUTPUT(1)	4.3.3.1	NOTE (7)	Po (1)	1050	1000	1120	W	
FREQUENCY	4.3.4		f	2458	2448	2468	MHz	
*** PULLING FIGURE	4.3.6	$\sigma_L=1.5$	fpl	-	-	15	MHz	
*** SINK PHASE	4.3.7		$\lambda_{sink}/\lambda_g$	0.25	-	-	-	
* STABILITY MODING (1)	4.3.11.2	$\sigma_L=2, 3, 4; t=60sec$	-	-	-	-	-	
* FUNDAMENTAL FREQUENCY RADIATION	4.3.15	$\sigma_L=4$	S1	-	-	1	mW/cm <sup>2</sup>	
*** LIFE TEST	4.5.1		t	-	500	-	hour	
*** LIFETEST END POINT	AVERAGE POWER OUTPUT (1)	4.3.3.1	NOTE (7)	Po (1)	-	800	-	W

SPEC. NO. :

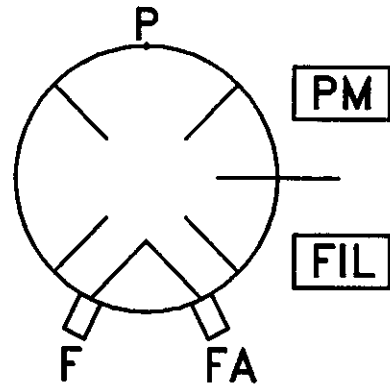
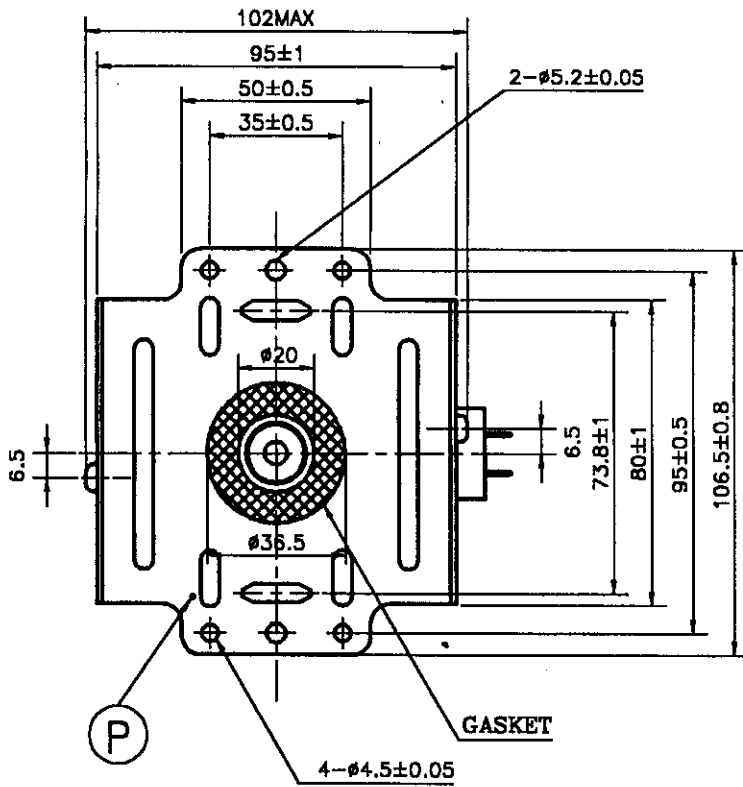
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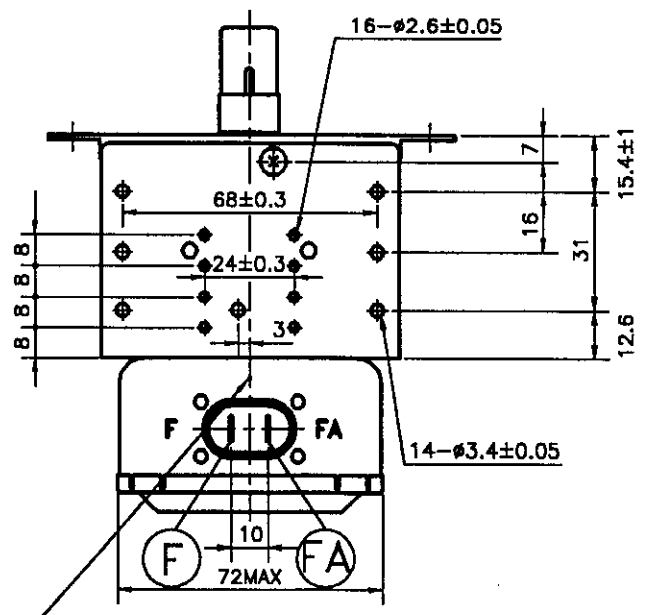
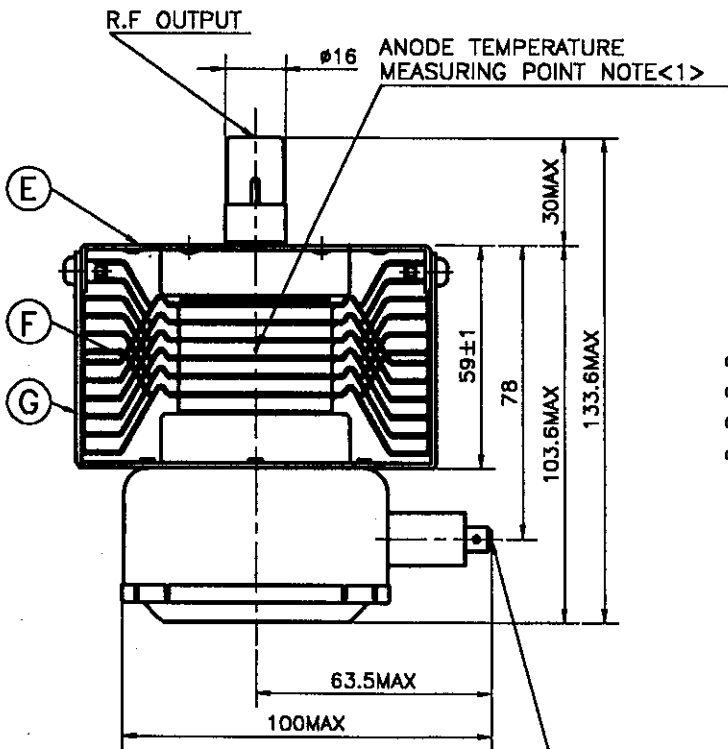
- NOTE (1) Prescribed R.F. Coupler (Refer to the attached chart) or the similar type must be used.
- (2) Forced air cooling (1000 ℓ/min).
- (3) Single phase full wave rectified without filter shall be used for power supply.
- (4) See outline drawing for measuring point.
- (5) Maximum saturated anode temperature for normal condition (with load in the cavity) should be 250°C.
- (6)  $E_b=10\text{kVdc}$  or  $7\text{kVac}$  :  $t=60\text{sec}$
- (7) The surrounding temperature will be settled at the value of 25°C and its exchange rate should be  $-0.002/^\circ\text{C}$ .
- (8) Tests shall be classified as follows.

Class	Mark	Remarks
Production test	None	This test is intended to ensure if the production line is being processed in compliance with the standard, and shall be conducted on some typical characteristics which are considered to be affected by changes in the process.
Design test	*	This test is intended to ensure the standard design, and shall be conducted on such characteristics which are not affected by the ordinary production line as long as the design is maintained.
Type approval test	**	This test is intended to ensure the compliance of the standard design with given specifications, and may be omitted unless a substantial change in the design is made.

UNIT: mm



NOTE<1> TEMPERATURE TO BE MEASURED AT THE OUTLET SIDE OF AIRFLOW.



CASE TEMPERATURE MEASURING POINT

FIT TO #250 FASTON RECEPTACLE

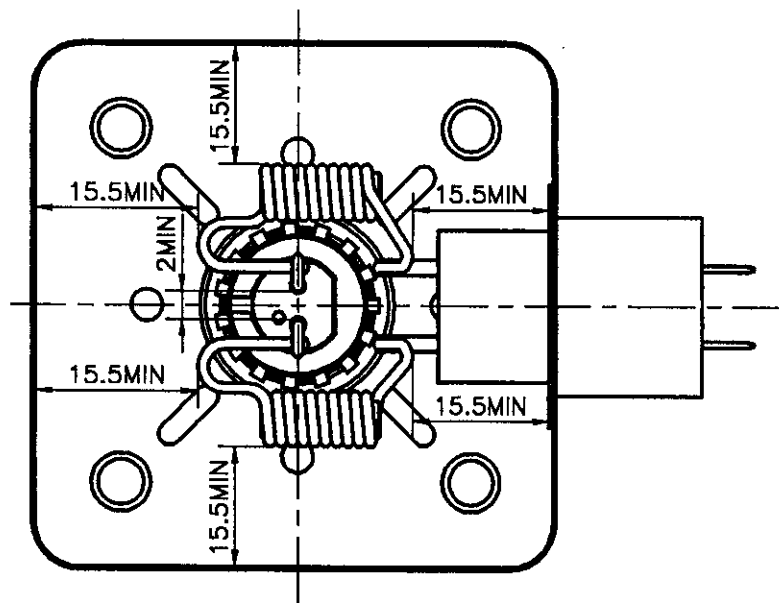
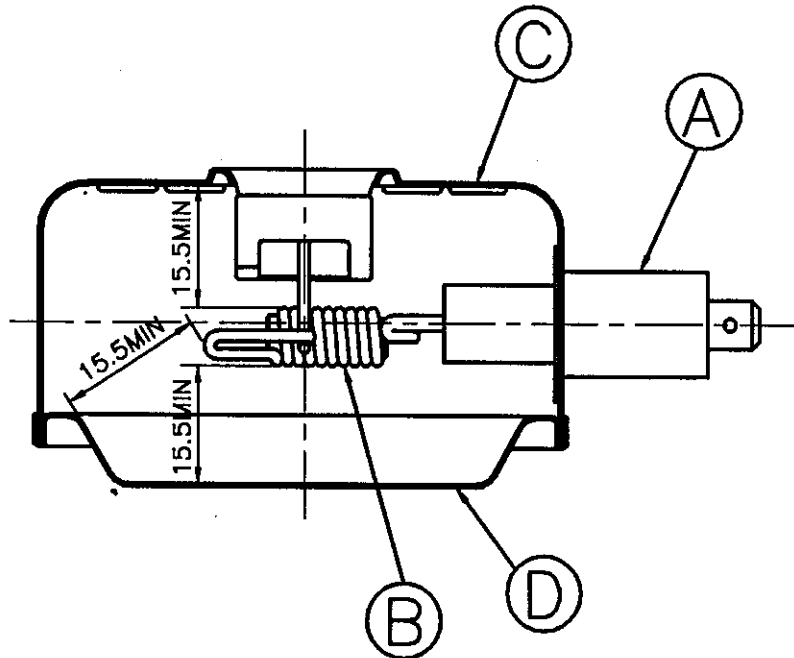
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# SPACING IN THE SHIELDING CASE

UNIT: mm



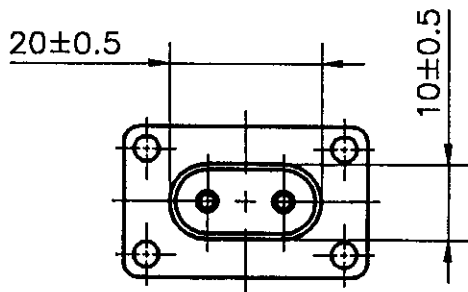
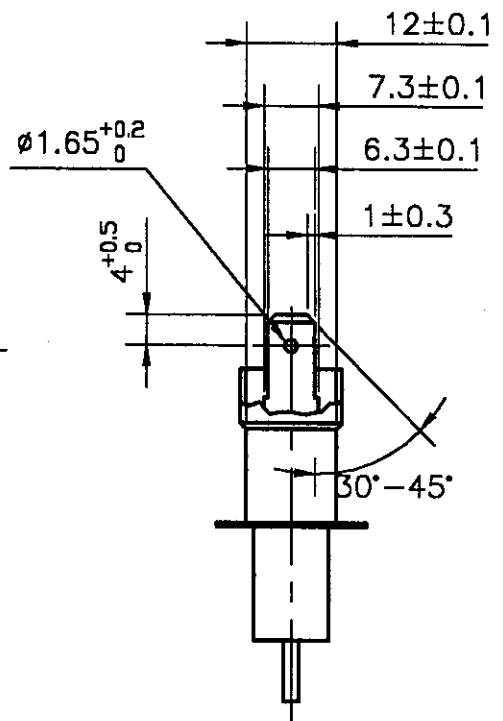
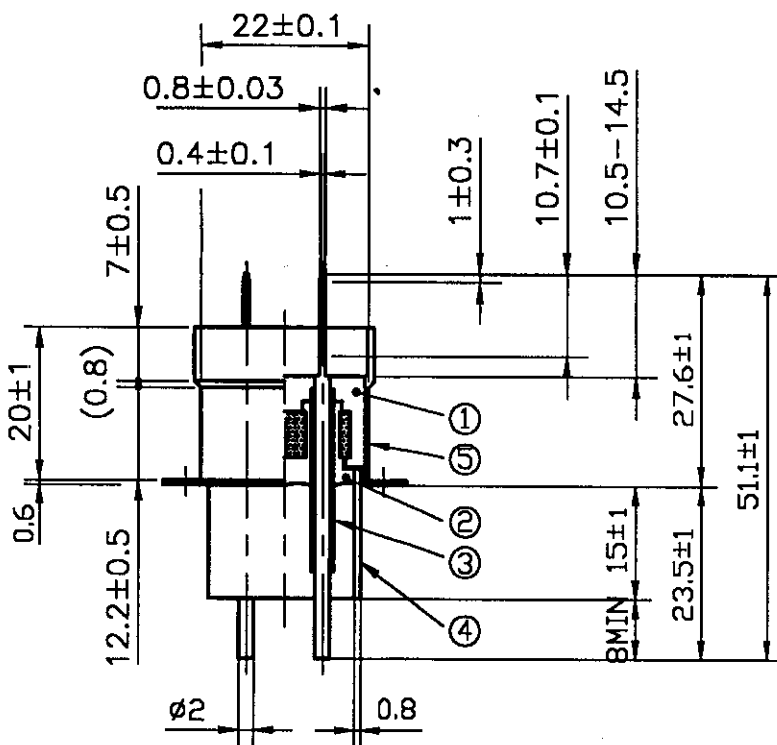
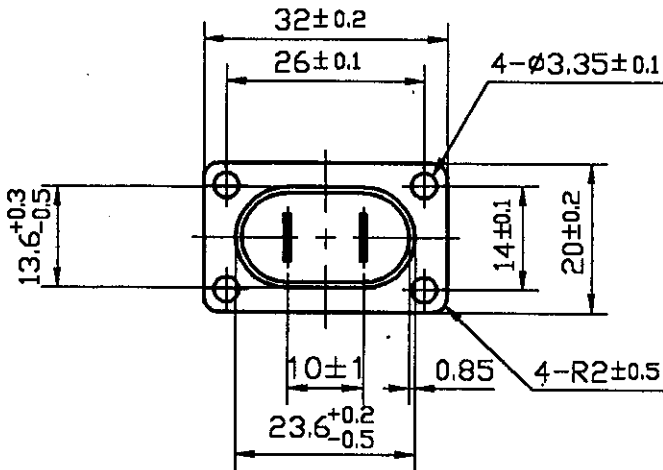
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DETAILS OF FILTER CAPACITOR

UNIT : mm



NOTE<1> THE FASTON TAB MEETS TO BS 5057: 1973 AND DIN 46244; APRIL 1980.

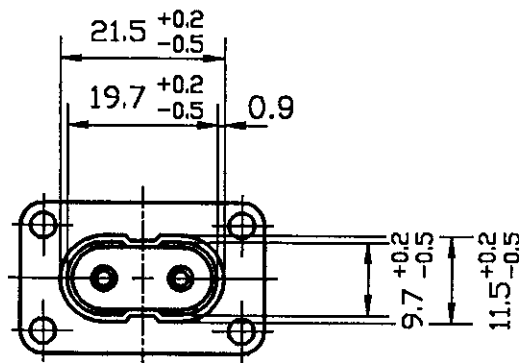
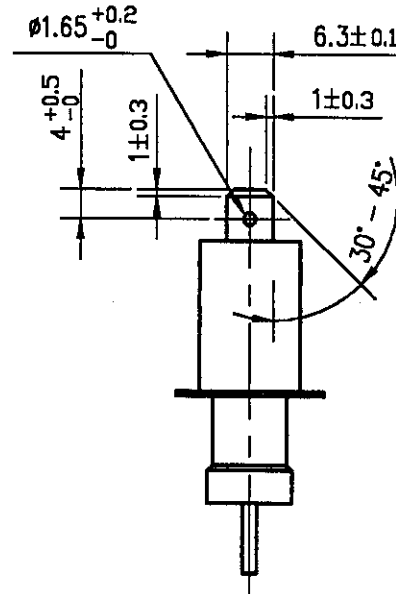
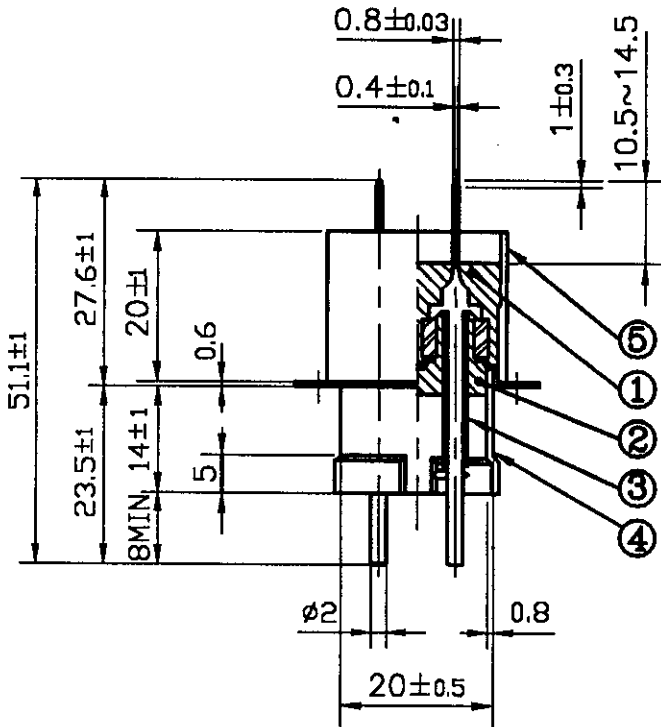
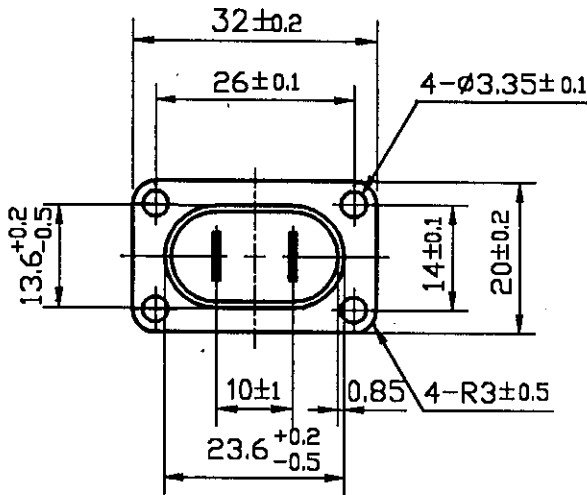
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DETAILS OF FILTER CAPACITOR

UNIT : mm



NOTE<1> THE FASTON TAB MEETS TO BS 5057: 1973 AND DIN 46244; APRIL 1980.

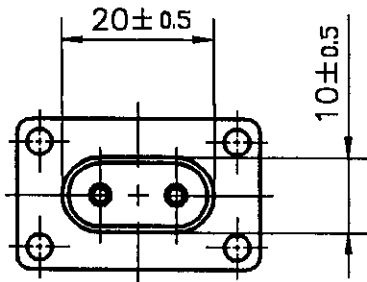
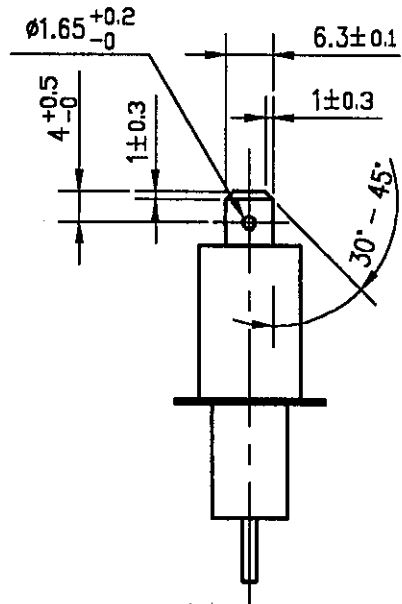
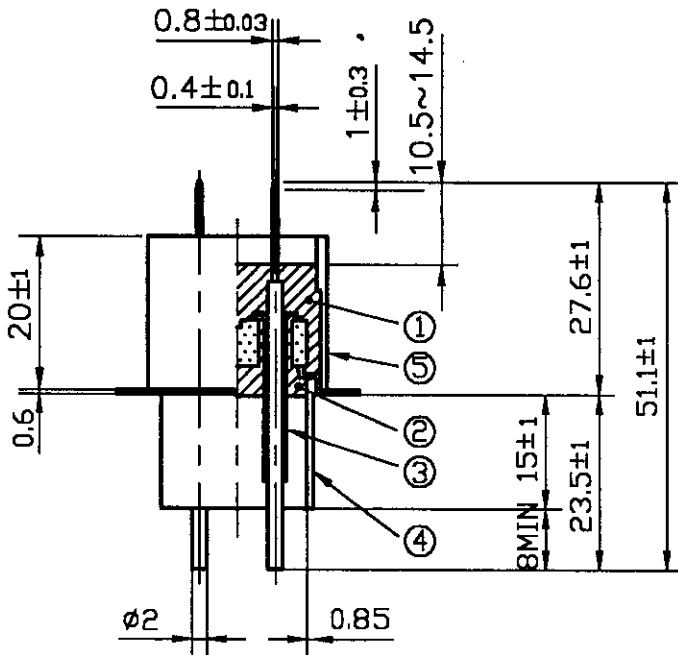
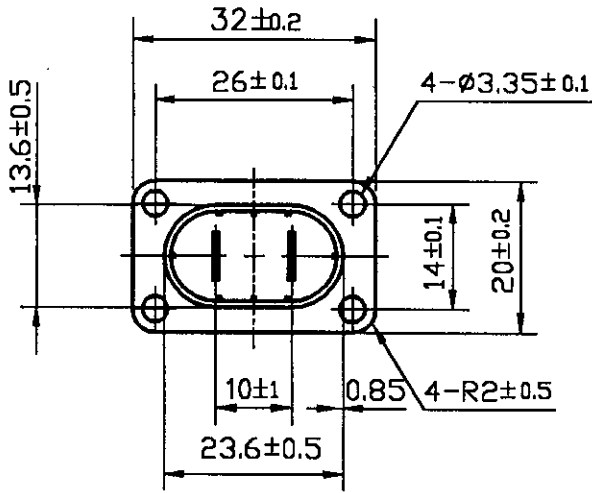
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DETAILS OF FILTER CAPACITOR

UNIT : mm



NOTE<1> THE FASTON TAB MEETS TO BS 5057: 1973 AND DIN 46244; APRIL 1980.

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## MATERIAL LIST

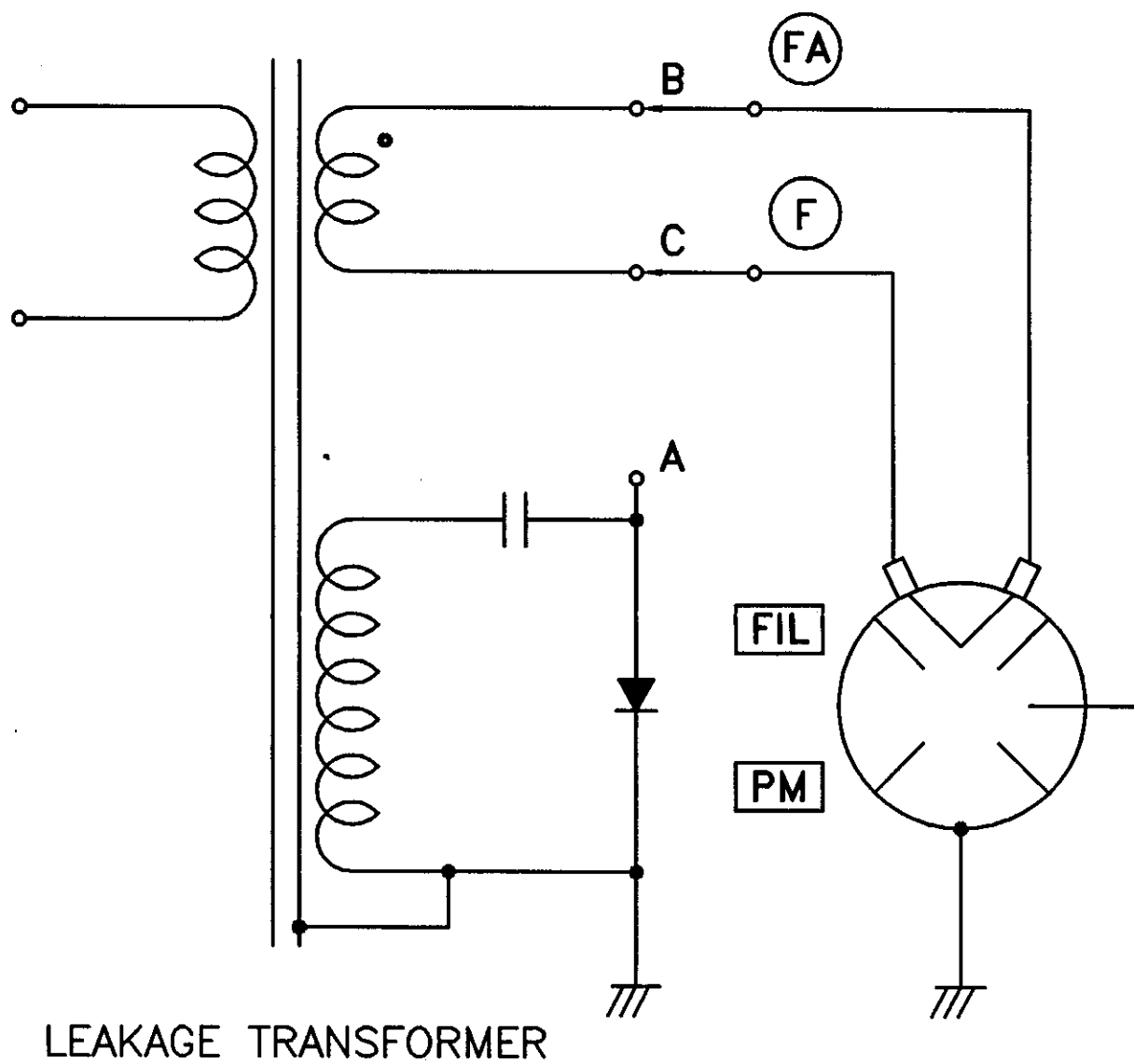
PART NAME	MANUFACTURER	MATERIAL	MANUFACTURER of MATERIALS	UL - No.			NOTE	
				Guide No.	File No.	Grade No.		
A Capacitor	TDK Corporation	1	Epoxy Resin	TDK Corporation	-	-	R-2	500pFx2 WV10KVDC
		2	Epoxy Resin	TDK Corporation	-	-	R-3	
		3	Silicon	1)Shin_etsu Chemical Co.,LTD. 2)Toshiba Silicon Co.,LTD.	-	-	1)5609 or 5620 2)2502	
		4	Polyethylene Terephthalate	Teijin LTD.	QMFZ2	E52857	CN9015	
		5	Polyethylene Terephthalate	Mitsubishi rayon Co.,LTD.	QMFZ2	E54695	PBTG2930	
	CERACOM Co.,LTD.	1	Epoxy Resin	Hitachi Corporation	UL94V-0			
		2	Epoxy Resin	Hitachi Corporation	UL94V-0			
		3	Silicon	Shin_etsu Chemical Co.,LTD.	UL224FR-1 No.5620 or 5609			
		4	PBT	Kolon Industries INC.	UL94V-0 E88499			
		5	PBT	Kolon Industries INC.	UL94V-0 E88499			
	SAMWHA CAPACITOR Co.,LTD.	1	Epoxy Resin	Nippon Pelnox Corporation	-	E62027S	UL94V-0	
		2	Epoxy Resin	Nippon Pelnox Corporation	-	E62027S	UL94V-0	
		3	Silicon	HAERYONG Silicone Co.,LTD.	-	E98818S	UL94V-0	
		4	PBT	LG Chemical LTD.	-	E67171M	UL94V-0	
		5	PBT	LG Chemical LTD.	-	E67171M	UL94V-0	

RM259

## MATERIAL LIST

	PART NAME	MANUFACTURER	METERIAL	THICKNESS or DIRMETER(mm)	SIZE (mm)	NOTE
B	Choke coil	Sunjin Industrial Co.,LTD Sangshin Electro- nics Co.,LTD.	Ferrite	-	φ5 x 16	9.5 turns 1.5 μH x 2
			Enameled copper wire	φ 1.4		
C	Shielding case	Daewoo Electronics Co.,LTD.	Zinc steel	T 0.4	70 x 70	
D	Shielding case cover	do	do	T 0.4	71 x 71	
E	Heat sink enclosure (1)	do	do	T 1.4	-	
F	Heat sink	do	Aluminium	T 0.8	95 x 80	6 fins
G	Heat sink enclosure (2)	do	Zinc steel	T 1.4	-	
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# FILAMENT CONNECTION



A WILL BE CONNECTED TO B OR C

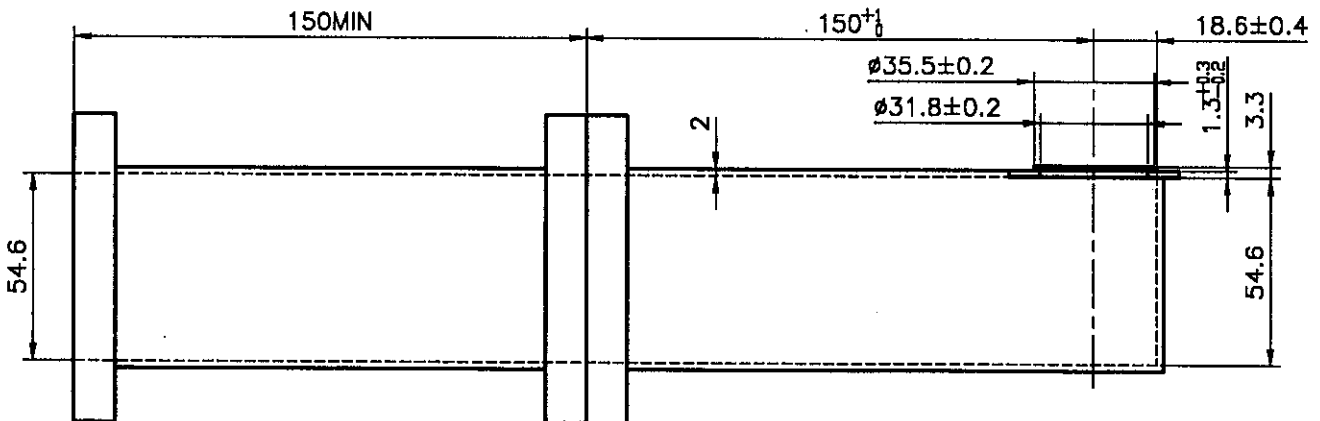
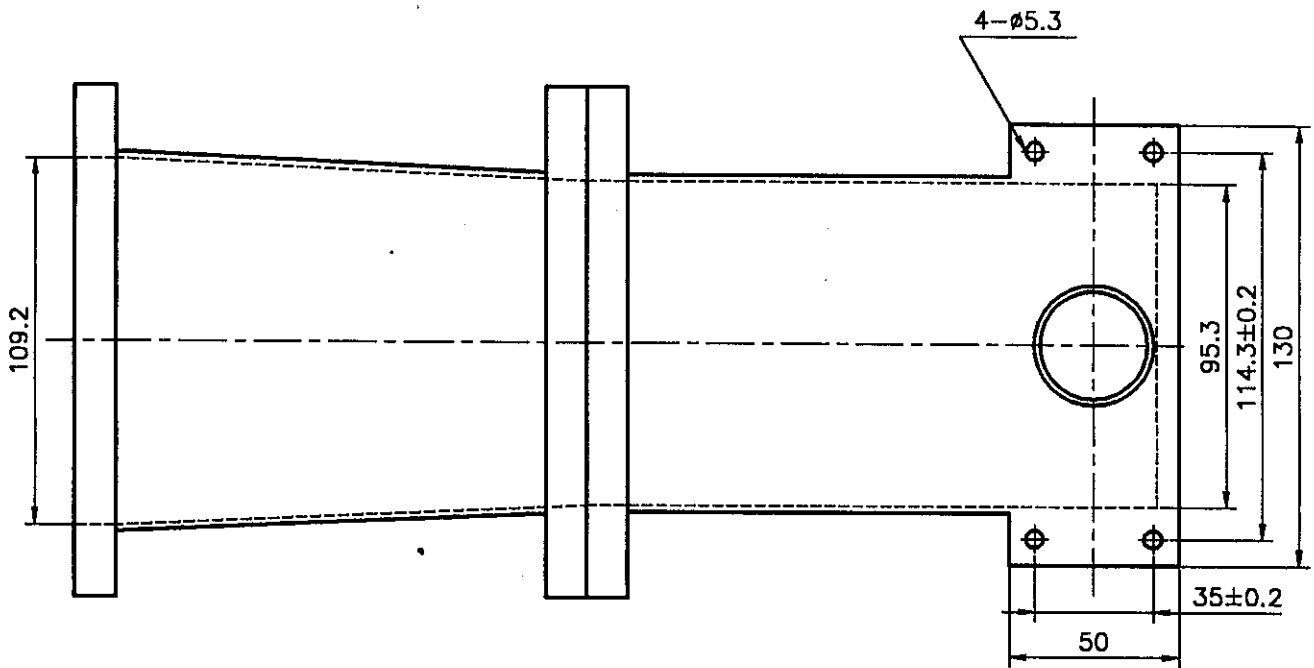
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# R. F. COUPLER

UNIT: mm



STANDARD R.F. COUPLER DEFINED BY E.I.A.J.

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# LABEL

## LABEL

The Label as shown below shall be put on each tube.

