



**DAEWOO**  
DAEWOO ELECTRONICS Corp.

MAGNETRON PRODUCTION TEAM  
981-1 JANGDUCK-DONG  
GWANGSAN-KU, GWANG JU, KOREA  
TEL : 82-62-950-8440  
FAX : 82-62-952-2944

# SPECIFICATION

FOR  
DAEWOO MAGNETRON  
R M 2 2 8

*Jung ho Kwon*

JUNG-HO KWON

TEAM LEADER  
MAGNETRON TEAM  
DAEWOO ELECTRONICS Corp.

RM228

## ELECTRICAL SPECIFICATION

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

## DAEWOO CONTINUOUS WAVE MAGNETRON RM228

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	lb	Ibm	Pin	$\sigma_L$	Tp	T case
	UNIT	V	sec	kV	mAdc	A	kW	-	°C	°C
	MAX.	3.75	-	4.5	350	1.2	1.4	4	250	100
	MIN.	2.80	0	-	-	-	-	-	-	-
STANDARD TEST CONDITION	NOTE (1)(2)(3)	3.30	-	-	300	-	-	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	4.10	3.95	4.25	kV	
AVERAGE POWER OUTPUT(1)	4.3.3.1	NOTE (7)	Po (1)	925	885	965	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)	-	710	-	W
SPEC. NO. :		DATE :			PAGE : 2/10'			

- 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)  $E_b=10kVdc$  or  $7kVac$  :  $t=60sec$
- (7) The surrounding temperature will be settled at the value of 25°C and it's exchange rate should be  $-0.002/°C$ .
- (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.

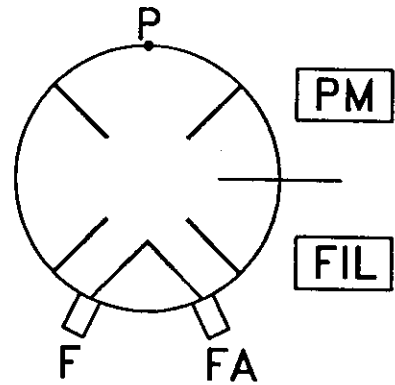
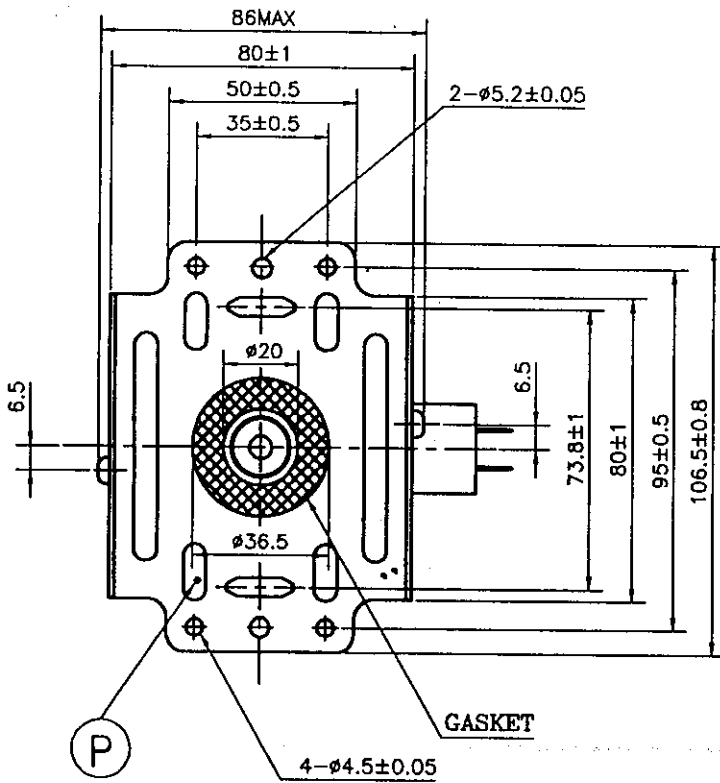
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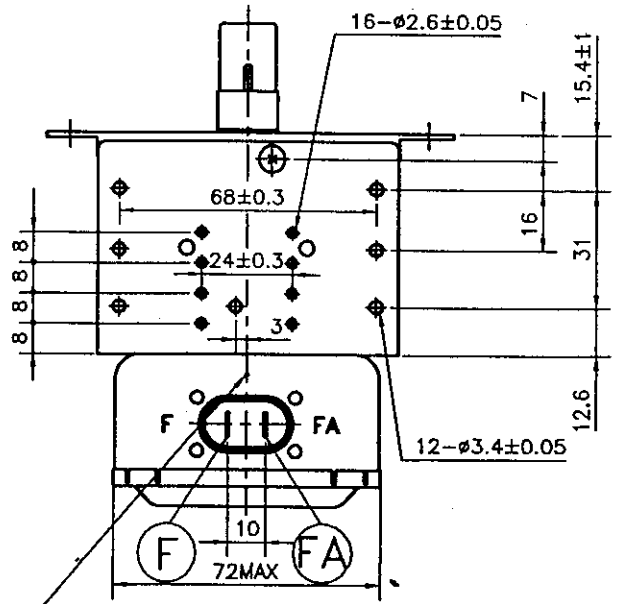
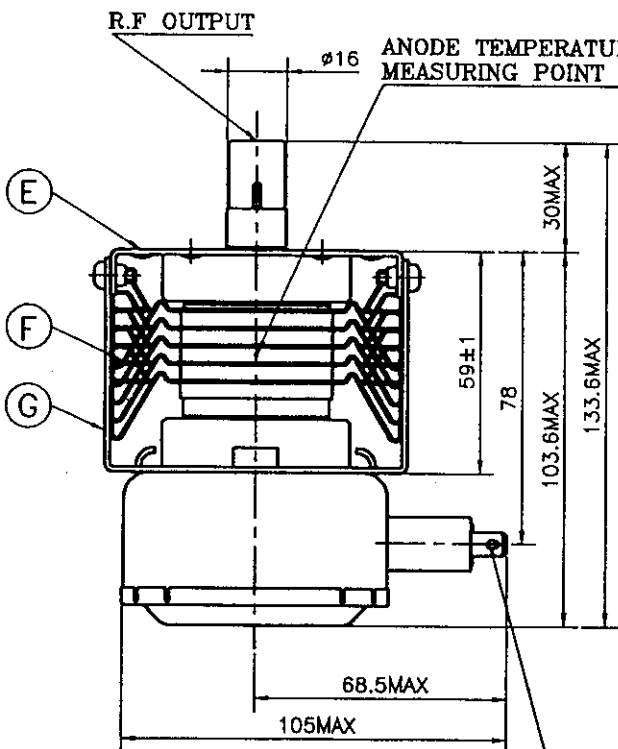
PAGE : 3/10

OUTLINE DRAWING

UNIT: mm



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



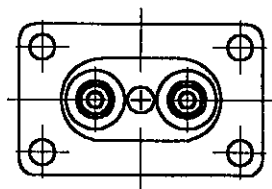
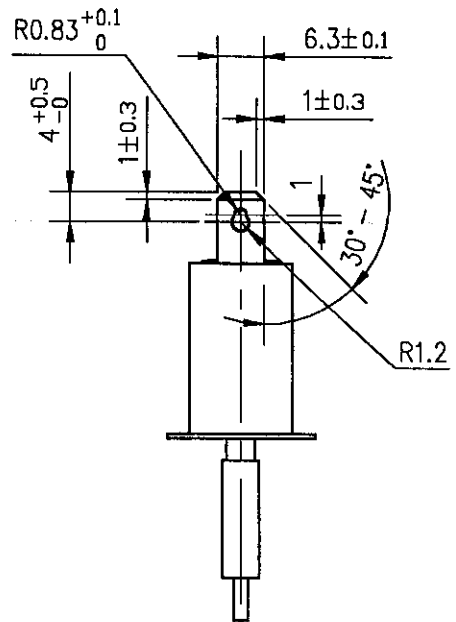
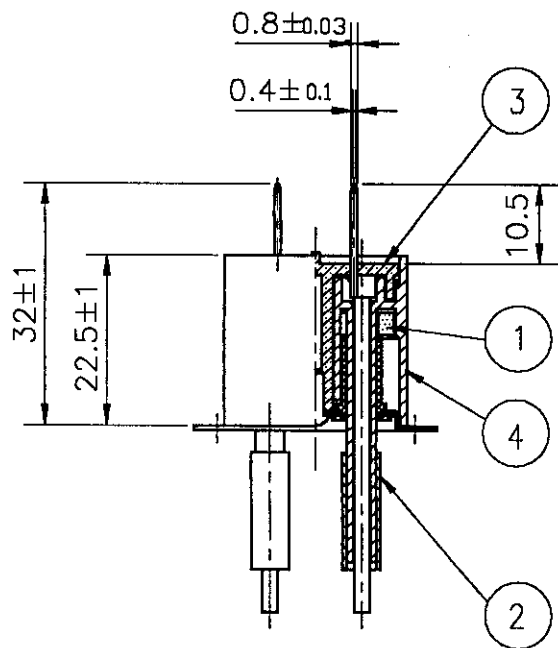
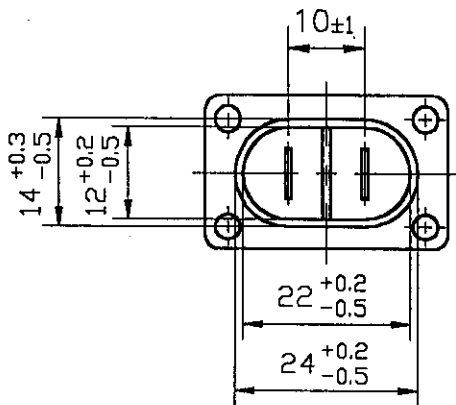
CASE TEMPERATURE MEASURING POINT

FIT TO #250 FASTON RECEPTACLE



# DETAILS OF FILTER CAPACITOR

UNIT : mm



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

SPEC.NO.:

DATE:

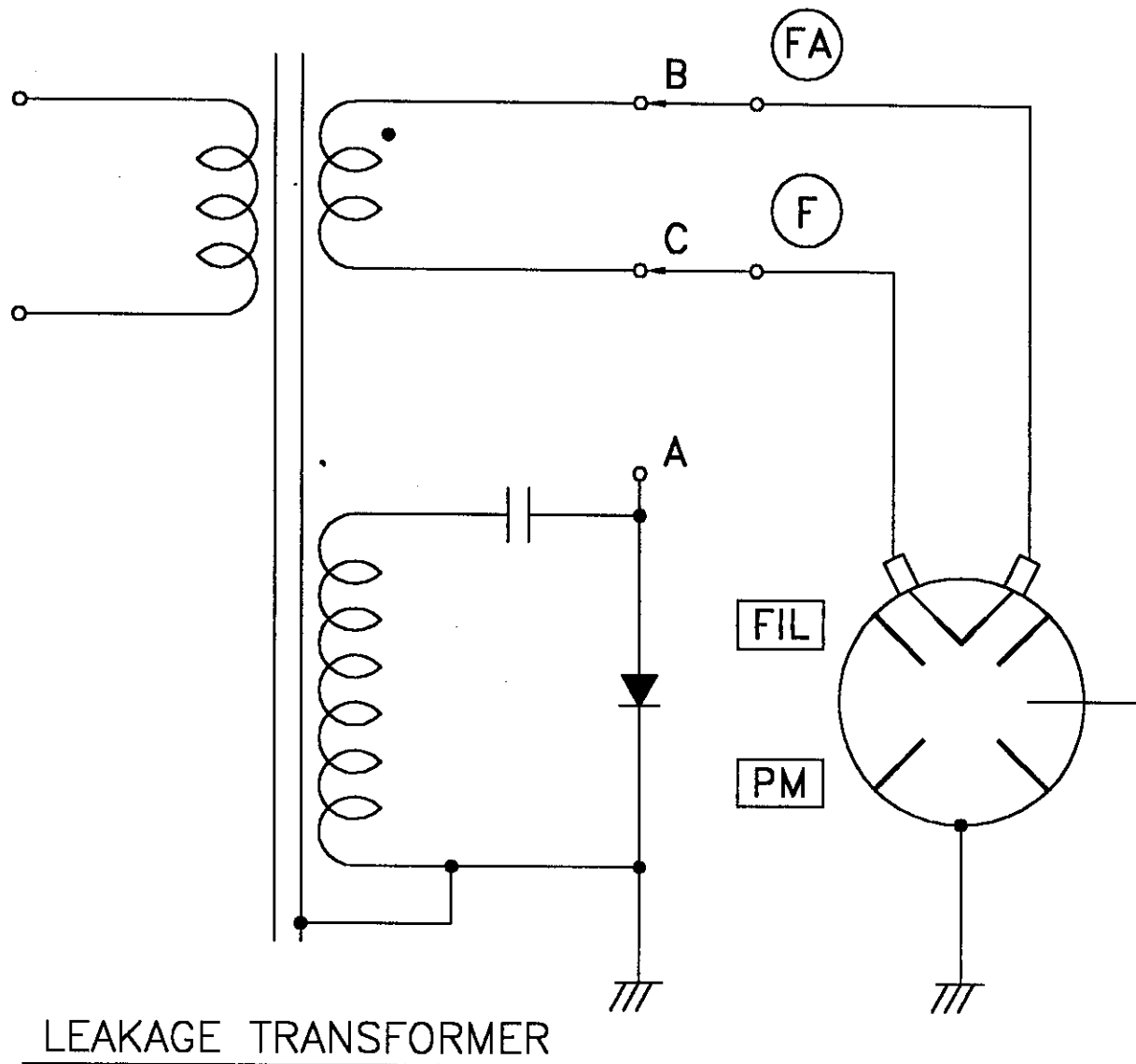
PAGE: 6/10

## MATERIAL LIST

	PART NAME	MANUFACTURER	MATERIAL	MANUFACTURER of MATERIALS	UL - No.			NOTE	
					Guide No.	File No.	Grade No.		
A	Capacitor	HUMAN Electronics Co., LTD	1	RUBBER & FERRITE	Jahwa Electronics Co., LTD.	-	E92827S	UL94V-0	WV10KVDC
			2	SILICON	Dow Corning Corp.	-	E40195	UL94V-0	
			3	PBT	LG Chemical LTD.	-	E67171	UL94V-0	
			4	PBT	LG Chemical LTD.	-	E67171	UL94V-0	

	PART NAME	MANUFACTURER	MATERIAL	THICKNESS or DIMETER(mm)	SIZE (mm)	NOTE
B	Choke coil	HUMAN Electronics Co., LTD.	Ferrite	-	$\phi 5 \times 16$	9.5 turns 1.5 $\mu$ H x 2
			Enameled copper wire	$\phi 1.4$		
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 0.7	80 x 80	5~6 fins
G	Heat sink enclosure (2)	do	Zinc steel	T 1.4	-	

# FILAMENT CONNECTION



LEAKAGE TRANSFORMER

A WILL BE CONNECTED TO B OR C

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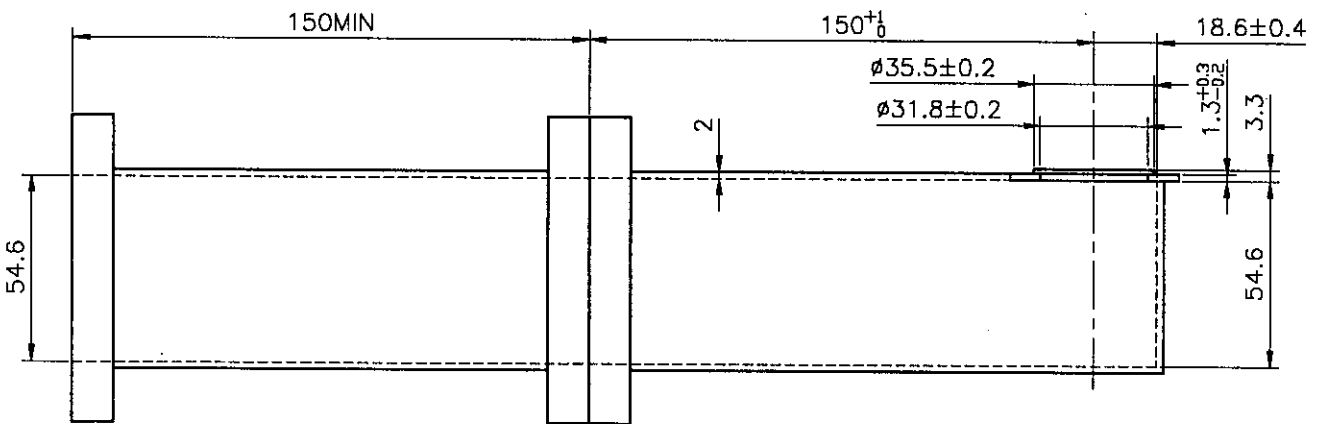
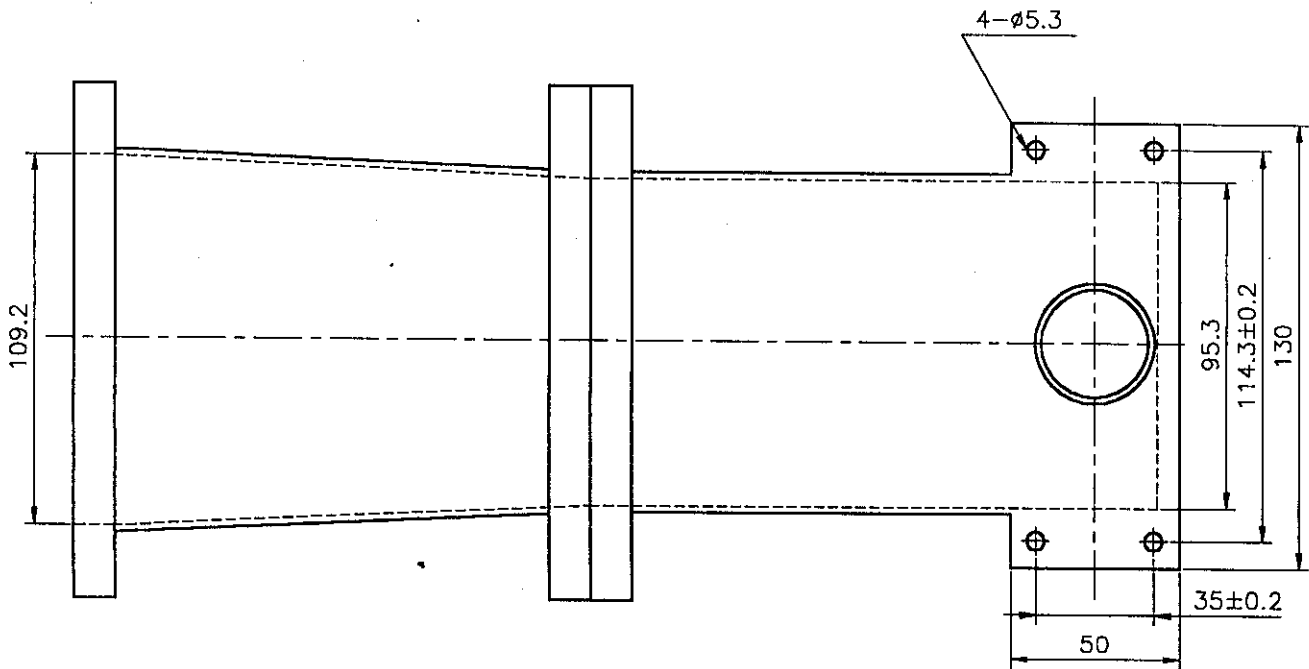
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PAGE: 8/10



# R. F. COUPLER

UNIT: mm



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

SPEC.NO.:

DATE:

PAGE: 9/10

# LABEL

## LABEL

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

