



SPECIFICATION APPROVAL

Soft ferrite core

DMEGC Part Number

DMR44 RM10

CONTENT

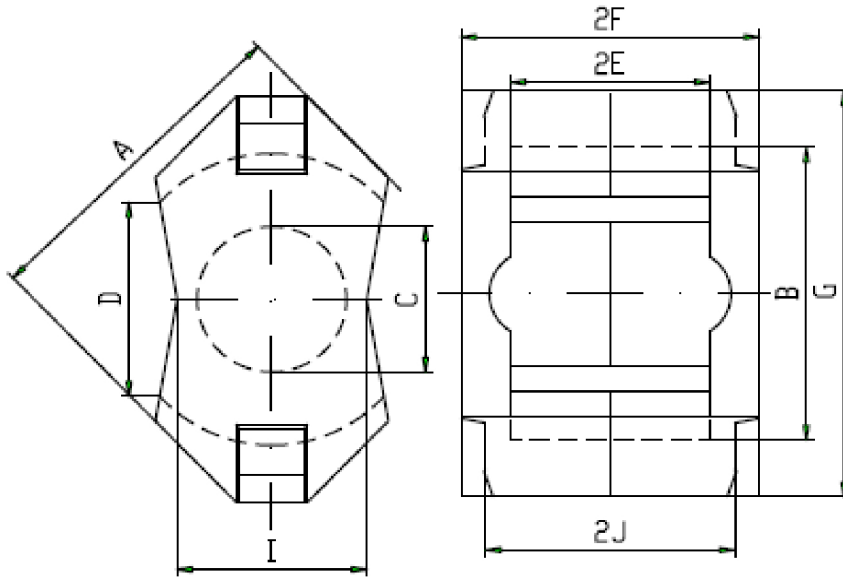
- 1、 SHAPE AND DIMENSIONS
- 2、 APPEARANCE REQUIREMENT
- 3、 ELECTROMAGNETIC AND  
MECHANICAL PROPERTY
- 4、 MATERIAL CHARACTERISTICS
- 5、 INSPECTION RULES
- 6、 INSTRUCTION

**CUSTOMER:**

LEPCOS



## OUTLINE AND DIMENSIONS



A	B	C	D	2E	2F	I	G
24.15±0.55	21.65±0.45	10.7±0.2	11.3min	12.7±0.3	18.6±0.2	13.25±0.25	27.85±0.65

Core Factor C1(mm <sup>-1</sup> )	Effective Length Le(mm)	Effective Area Ae(mm <sup>2</sup> )	Effective Volume Ve(mm <sup>3</sup> )
0.45	44	98	4312



## APPEARANCE REQUIREMENT

1 Tidiness: Clean , no water stain, no foreign substances like dust, alumina and etc.

### 2. Chips

Core Size(Dim. A)	Functional surface			Non Functional Surface		
	(mm <sup>2</sup> ) Max Area	(mm) Depth	Max Qty.	(mm <sup>2</sup> ) Max Area	(mm) Depth	Max Qty.
≤10mm	0.6	0.3	2	1	0.5	2
10mm~20mm	1	0.3	2	2	0.5	2
20mm~30mm	1.5	0.3	2	2.5	0.5	2
>30	2	0.3	2	4	0.5	2
Areas < 0.3mm <sup>2</sup> are not counted						

3 Cracks: No cracks are allowed except moire(tiny surface cracks) and R angle cracks. No any cracks might affect the electric property of the cores are allowed as specifically required by customer and judged by the criteria agreed mutually by DMEGC and customer.

### 4. Bur(Flash)

No visible ragged edges are allowed.

Burrs can not be higher than the main plane during visual inspection.

Length of the burrs are supposed to be shorter than one fourth of the length of the core where the burrs occurred.

1. Above standards were made according to IEC-60424.

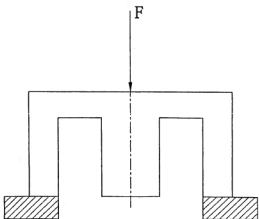
2. Those not included in above standards may refer to IEC-60424.

3. Dimension A mentioned above is referred to the outer dimension.

4. Above standards are the general standards for the designing of the visual appearance of DMEGC ferrite cores. Customers' specific requirement other than those included above will be negotiated between DMEGC and customer and documented in the specification.



## ELECTROMAGNETIC AND MECHANICAL PROPERTY

Measurement item		Specification	Measurement condition
AL		4500nH/N2±25%	Instrument : HP4284A Frequency and Voltage:1kHz,0.25V Pressure : 1~2kg Temperature : 25°C±2°C
P Core Loss		≤120mW/g	Instrument SY8232 B-H Coil Φ0.35mm ; N=10Ts Frequency: 100kHz Flux Density 200mT Temperature 100°C±2°C
Mechanical Strength	M	≥80N 	Instrument KD-05 Type Testing speed 10mm/min



## DMR44 Material Characteristics

CHARACTERISTICS	CONDITIONS		VALUE	
$\mu_i$ Initial Permeability	10kHz, B<0.25mT	25°C	2400±25%	
$B_s$ (mT) Saturation Magnetic Flux Density	50Hz, 1194A/m	25°C	510	
		100°C	400	
$B_r$ (mT) Residual Magnetic Flux Density		25°C	110	
		100°C	60	
$H_c$ (A/m) Coercive Force		25°C	15	
		100°C	6	
$P_v$ (mW/cm <sup>3</sup> ) Power Loss		100kHz, 200mT	25°C	600
			60°C	400
	100°C		300	
	120°C		380	
$T_c$ (°C) Curie Temperature	10kHz, B<0.25mT		>215	
$\rho$ ( $\Omega \cdot m$ ) Resistivity		25°C	7.5	
$d$ (g/cm <sup>3</sup> ) Density		25°C	4.8	

The above typical data are calculated from the standard toroid core. The specific property of any parts will be adjusted a little based on these data.



## INSPECTION RULE

- 1** Cores inspection is conducted per GB/T2828.1-2012 with visual appearance and dimension II ,electromagnetic property S-3,AQL:0.65.
- 2** Customer is expected to complete the inspection within 10 days after receipt of the cores and inform supplier the results of cores inspection in writing or the cores would be treated as qualified.