



# THIN FILM CHIP RESISTORS

MC AT Professional and Precision Series



## Professional and Precision Thin Film Chip Resistors

### KEY BENEFITS

- High permissible film temperatures up to 175 °C
- High power rating up to  $P_{85} = 400$  mW
- Excellent humidity resistance
- New construction ensures extreme stability and reliability
- Precision tolerance 0.1 %

### APPLICATIONS

- Automotive
- Telecommunications
- Industrial equipment
- Test and measurement equipment
- Medical

Datasheet is available on our web site at [www.vishay.com](http://www.vishay.com) for  
Professional MC AT Series - <http://www.vishay.com/doc?28760>  
Precision MC AT Series - <http://www.vishay.com/doc?28785>

### MCS 0402 AT, MCT 0603 AT, MCU 0805 AT, MCA 1206 AT

#### Professional



##### FEATURES

- Operating temperature up to 175 °C for 1000 h
- Superior moisture resistivity,  $|\Delta R/R| < 0.5\%$  (85 °C; 85 % RH; 1000 h)
- Rated dissipation  $P_{70}$  up to 0.4 W for size 1206
- AEC-Q200 qualified
- Approved according to EN 140/401-801
- Lead (Pb)-free solder contacts
- Compliant to RoHS directive 2002/95/EC



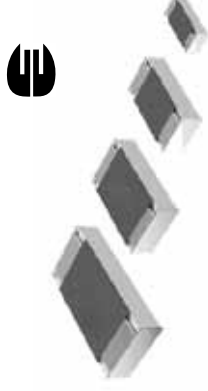
##### APPLICATIONS

- Automotive
- Telecommunication
- Medical equipment
- Industrial equipment

Automotive-Grade MC AT Professional Thin Film Chip Resistors are the perfect choice for most fields of modern professional electronics where reliability and stability is of major concern. Typical applications include automotive, telecommunication, industrial, medical equipment, precision test and measuring equipment.

METRIC SIZE		0402		0603		0805		1206	
INCH:		RR 1005M	RR 1608M	RR 2012M	RR 3216M				
METRIC:		RR 1005M	RR 1608M	RR 2012M	RR 3216M				

#### Precision



##### FEATURES

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##### APPLICATIONS

- Automotive
- Telecommunication
- Medical equipment
- Industrial equipment

Automotive-Grade MC AT Precision Thin Film Chip Resistors are the perfect choice for most fields of modern precision electronics where reliability and stability is of major concern. Typical applications include automotive, telecommunication, industrial, medical equipment, precision test and measuring equipment.

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##### TECHNICAL SPECIFICATIONS

DESCRIPTION	MCS 0402 AT	MCT 0603 AT	MCU 0805 AT	MCA 1206 AT
Metric size	RR 1005M	RR 1608M	RR 2012M	RR 3216M
Resistance range	47 Ω to 47 kΩ	47 Ω to 100 kΩ	47 Ω to 100 kΩ	47 Ω to 100 kΩ
Resistance tolerance	± 1 %; ± 0.5 %			
Temperature coefficient	± 25 ppm/K; ± 15 ppm/K			
Rated dissipation $P_{70}$ (1)	0.100 W	0.150 W	0.200 W	0.400 W
Operating voltage, $U_{max}$ , AC/DC	50 V	75 V	150 V	200 V
Permissible film temperature (1)	175 °C			
Insulation voltage	75 V	100 V	200 V	300 V
	Continuous	75 V	75 V	75 V

Note (1) Please refer to APPLICATION INFORMATION below

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DESCRIPTION	MCS 0402 AT	MCT 0603 AT	MCU 0805 AT	MCA 1206 AT
Metric size	RR 1005M	RR 1608M	RR 2012M	RR 3216M
Resistance range	47 Ω to 47 kΩ	47 Ω to 100 kΩ	47 Ω to 100 kΩ	47 Ω to 100 kΩ
Resistance tolerance	± 0.1 %			
Temperature coefficient	± 25 ppm/K; ± 15 ppm/K			
Rated dissipation $P_{70}$ (1)	0.063 W	0.063 W	0.200 W	0.400 W
Operating voltage, $U_{max}$ , AC/DC	50 V	75 V	150 V	200 V
Permissible film temperature (1)	155 °C			
Insulation voltage	75 V	100 V	200 V	300 V
	Continuous	75 V	75 V	75 V

Note (1) Please refer to APPLICATION INFORMATION below

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