WRM Series



TCR and Tolerance Ranges

Type	TCR	Tolerance (±%)						
Туре	(±ppm/°C)	5	1	0.5	0.25	0.1		
WRM0102	100	1PO	1M0					
	50	TI/O-	TIMO	8R2-1M0				
	25		49R9 – 390K 49R9 – 200K 100			-82K		
	15		100R – 56K					
WRM0204	100	R22-R91						
	50		1R0-5M1	10R-1M6	22R-332K	43R-332K		
	25		4R7-500K	10R-500K	22R-402K			
	15			10R-221K	22R – 221K	43R-221K		
	10 ¹				22N-221K			
	5 ¹				100R-	100R – 100K		
WRM0207	100	R22-R91		'				
	50		1R0-4M7	10R-1M6				
	25		10R-1M0	10R-680K	51R1-330K	100R-100K		
	15			51R1-10K		100R-10K		

Notes: 1. The 5 & 10ppm/°C TCRs are specified over the temperature range -10 to +85°C.

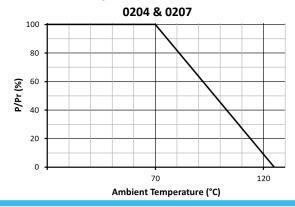
Performance Data

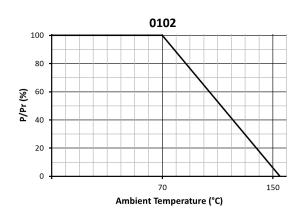
		±ΔR/R					
Test	[0102				
lest		75R – 100K	10R - <75R or >100K – 332K	<10R or >332K	All values		
Short time overload		0.05% + R01	0.1% + R01				
Bending test				0.25% + R05			
Resistance to soldering heat							
Temperature rapid change							
	1000 hrs	0.15% + R05		0.3% + R05	0.5% + R05		
Endurance (load life)	8000 hrs	0.3% + R05		0.6% + R05	1%+R05		
	225,000 hrs	0.9% + R05		1.8% + R05	3%+R05		
Climatic sequence		0.25% + R05	0.5% + R05	1%+R05			
Damp heat steady state			0.3/0 + 1003	170 + KUS			
Current noise		<0.05µV/V	<0.25µV/V	<3μV/V			
Solderability		>95% coverage					
Voltage coefficient		0 to -0.5ppm,∕V					
Voltage proof		No flashover or breakdown					

Notes: 1. Resistors to be mounted on a PC-board according to IEC 115-1, clause 4.27.1.

2. AEC-Q200 approval applies to all values up to and including 3M4 at TCRs above 5ppm/°C and to zero-ohm jumpers.

Temperature Derating



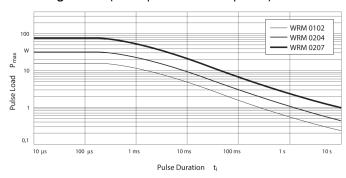


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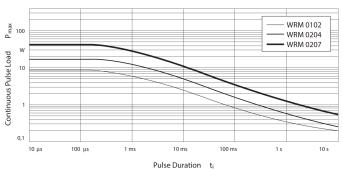


Pulse & Surge Performance

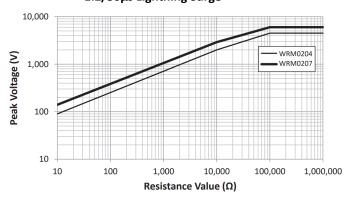
Single Pulse (mean power << rated power)



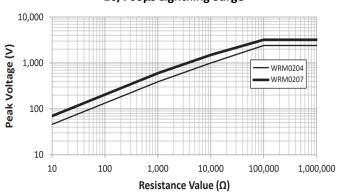
Continuous Pulses (mean power = rated power)



1.2/50µs Lightning Surge



10/700μs Lightning Surge



Packaging

WRM0102 and WRM0204 resistors are supplied in 8mm plastic tape on 7" reels. WRM0207 resistors are supplied in 12mm plastic tape on 7" reels. Packing complies with the requirements of IEC286-3.

Ordering Procedure

Examples: WRM0204C-1K0FI (0204, 50ppm/°C, 1 kilohm ±1%, Pb-free) WRM0207-R000T2 (0207, zero-ohm jumper, Pb-free)



1	2	3	4			5
Туре	TCR	Value	Tolerance	Packing		
WRM0102	V = ±5ppm/°C	3/4 characters	B = ±0.1%	I	0102	3000 / 7" reel
WRM0204	$T = \pm 10$ ppm/°C	R = ohms	C = ±0.25%		0204	3000 / 7" reel1
WRM0207	$Y = \pm 15ppm/^{\circ}C$	K = kilohms	$D = \pm 0.5\%$	T2 ²	0207	2000 / 7" reel
	D = ±25ppm/°C	M = megohms	F = ±1%			
	C = ±50ppm/°C	R000 = Jumper	J = ±5%			
	$Z = \pm 100$ ppm/°C		Omit for Jumper			
	Omit for Jumper			-		

Notes:

- 1 High precision parts may be supplied on 1000-piece reels please enquire.
- 2 Legacy part numbers used packing code "I" for WRM0207, which indicated 1500 / 7" reel.