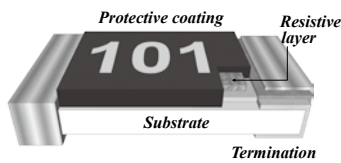


Thick Film Lead Free Chip Resistors



FEATURES

- Meet AEC-Q200 test for Automotive industry.
- Suitable for lead free soldering.
- Compatible with wave and reflow soldering.
- Anti-sulfurate products.
- RoHS compliant & Halogen Free.

APPLICATION

- Automotive industry.
- Digital meter, Consumer electronics, M/B.
- Portable electronic devices

PART NUMBER

FWF	03	F	T	-	1004	-	W
Type	Size	Tolerance	Packing	Watt	R Value	TCR	Special Code
□□□	□□	□	□	□	□□□□		
FWF Thick Film Automotive	02 0402 03 0603 05 0805 06 1206 12 1210 20 2010 25 2512	F = ±1% J = ±5%	T = Paper tape – 5 Kpcs V = Paper tape – 10 Kpcs W = Paper tape – 20 Kpcs P = Plastic tape – 4 Kpcs X = Plastic tape – 8Kpcs Y = Plastic tape – 16Kpcs	"-" Standard	XXXX >=1R 1% 4 digit 5% 3 digit ("_" means a blank)	No special code- Null special code- "-"	"Null" Standard W: Anti-sulfur H2S 1000ppm S: Safety concern application

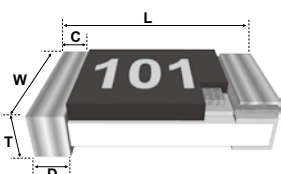
RATING

Type	Normal Type Power Rating @ 70°C	Max. RCWV	Max. Overload Voltage	Resistance Tolerance (%)	Temperature Coefficient of Resistance (TCR ; ppm/°C)	Resistance Range		Standard Resistance Values
						Min.	Max.	
FWF02 0402	1/16W	50V	100V	±1(F) ±5(J)	±200	> 1MΩ	10MΩ	±1%(F) : E-96/E-24 ±5%(J) : E-24
					±100	> 10Ω	1MΩ	
					-200~+400	0 & 1Ω	10Ω	
FWF03 0603	1/10W	75V	150V	±1(F) ±5(J)	±200	> 1MΩ	10MΩ	
					±100	> 10Ω	1MΩ	
					-200~+400	0 & 1Ω	10Ω	
FWF05 0805	1/8W	150V	300V	±1(F) ±5(J)	±200	> 1MΩ	10MΩ	
					±100	> 10Ω	1MΩ	
					-200~+400	0 & 1Ω	10Ω	
FWF06 1206	1/4W	200V	400V	±1(F) ±5(J)	±200	> 1MΩ	10MΩ	
					±100	> 10Ω	1MΩ	
					-200~+400	0 & 1Ω	10Ω	
FWF12 1210	1/2W	200V	400V	±1(F) ±5(J)	±200	> 1MΩ	10MΩ	
					±100	> 10Ω	1MΩ	
					-200~+400	0 & 1Ω	10Ω	
FWF20 2010	1/2W	200V	400V	±1(F) ±5(J)	±200	> 1MΩ	10MΩ	
					±100	> 10Ω	1MΩ	
					±200	0 & 1Ω	10Ω	
FWF25 2512	1W	250V	500V	±1(F) ±5(J)	±200	> 1MΩ	10MΩ	
					±100	> 10Ω	1MΩ	
					±200	0 & 1Ω	10Ω	

Type	Description	Max. Rated Current	Resistance Range
FWF02 0402	Zero Ohm · Jumper	≦ 1A	< 50mΩ
FWF03 0603	Zero Ohm · Jumper	≦ 1A	< 50mΩ
FWF05 0805	Zero Ohm · Jumper	≦ 2A	< 50mΩ
FWF06 1206	Zero Ohm · Jumper	≦ 2A	< 50mΩ
FWF12 1210	Zero Ohm · Jumper	≦ 3A	< 50mΩ
FWF20 2010	Zero Ohm · Jumper	≦ 3A	< 50mΩ
FWF25 2512	Zero Ohm · Jumper	≦ 3A	< 50mΩ

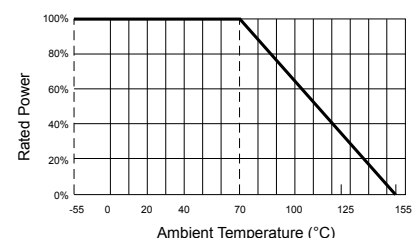
Note :
 (1) RCWV = (P × R)^{1/2} or Max. RCWV listed above, whichever is lower.
 RCWV : Rated Continue Working Voltage(V) · P : Rated Power(W) · R : Resistance Value(Ω)

DIMENSIONS



Size	L	W	C	D	T	unit: mm
0402	1.00±0.05	0.50±0.05	0.20±0.10	0.25±0.10	0.35±0.05	
0603	1.60±0.10	0.80±0.10	0.30±0.20	0.30±0.20	0.45±0.10	
0805	2.00±0.10	1.25±0.10	0.40±0.20	0.40±0.20	0.50±0.10	
1206	3.10±0.10	1.60±0.10	0.50±0.25	0.50±0.25	0.55±0.10	
1210	3.10±0.10	2.60±0.10	0.50±0.25	0.50±0.25	0.55±0.10	
2010	5.00±0.20	2.50±0.20	0.60±0.25	0.60±0.25	0.60±0.10	
2512	6.40±0.20	3.20±0.20	0.60±0.25	0.90±0.25	0.60±0.15	

POWER DE-RATING CURVE



Operating Temperature Range: -55 to +155 deg.C