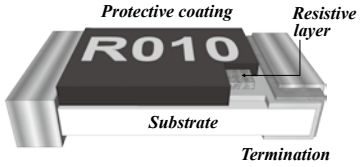
FPF-L

■ Current Sensing Thick-film Power Type Chip Resistors



FEATURES

- High power rating to 2W and low TCR.
- Low resistance and high precision (1%).
- Excellent reliability and suitable cost.
- Suitable for lead free soldering.
- Meet AEC-Q200, RoHS compliant & Halogen Free.

APPLICATION

- Consumer electronics, M/B.
- Battery pack, BTC.
- Notebook, Tablet PC.
- Portable Device, Electronic Equipment.

PART NUMBER

FPF	25	F	P	-	R005	-	M
Type □□□	Size □□	Tolerance □	Packing □	Watt □	R Value □□□□	TCR	Special Code
FPF Thick Film High Power Low ohm	**03** 0603 **05** 0805 **06** 1206 **12** 1210 **20** 2010 **25** 2512	**F** =±1% **G** =±2% **J** =±5%	**T** =Paper tape – 5 Kpcs **V** =Paper tape – 10Kpcs **W** =Paper tape – 20Kpcs **P** =Plastic tape – 4Kpcs **X** =Plastic tape – 8Kpcs **Y** =Plastic tape – 16Kpcs **Q** =Plastic tape – 3 Kpcs (For 2512 3W)	**"–"** Standard Power boost code **K** =3W (2512)	**XXXX** 4 digit	No special code- Null special code- "–" Power boost code **N** =100ppm **L** =200ppm	**"Null"** Standard **M:** Meet AEC-Q200

RATING

Type		Normal Type Power Rating @ 70℃	Max. RCWV (mV)	Max. Overload Voltage (mV)	Resistance Tolerance (%)	Temperauture Coefficient of Resistance (TCR ; ppm/℃)	Resistance Range (mΩ)		Standard Resistance Values
							Min.	Max.	
FPF03	**0603**	1/4W	477	1066	±1%, ±5%	±250	50	91	E-24 Special request please contact sales window
						±150*	100	910	
FPF05	**0805**	1/3W	551	1232	±1%, ±5%	±200	50	91	
						±100*	100	910	
FPF06	**1206**	1/2W	675	1508	±1%, ±5%	±100*	50	91	
						±100	100	910	
FPF12	**1210**	1/2W	675	1508	±1%, ±5%	±100	100	910	
FPF20	**2010**	1W	954	2133	±1%, ±5%	±100*	50	91	
						±100	100	910	
FPF25	**2512**	2W	1349	3017	±1%, ±5%	±100*	50	91	
						±100	100	910	
FPF25	**2512**	3W	1652	3695	±1%	±100	100	910	
					±5%	±200	100	910	

* Temperature 25~-55℃ , 200ppm for 0603, 150ppm for 0805, 1206, 2010, 2512

Note :

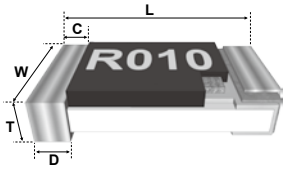
(1) 2512(2W) loading with total solder-pad and trace size of 300 mm^2
2512(3W) Solder-pad and trace size should be >300 mm^2 and board surface temperature should, not exceed 105℃ when applying full rated power.

(2) $E = (P \times R)^{1/2}$ E：Working Voltage(V) , P：Rated Power(W) , R：Resistance Value(Ω)

GUIDE OF CURRENT SENSING RESISTORS

Series	Product Type	Resistance Range (<1Ω)	Power Type	AEC Q200
FMF	Metal Strip	0mΩ~220mΩ	V	V
FOF	Metal Foil	2mΩ~700mΩ	V	
FBF	Metal Type	10mΩ~910mΩ	V	
FPF	**High Power**	**50mΩ~910mΩ**	**V**	**V**
FCF-E	Normal	50mΩ~910mΩ		

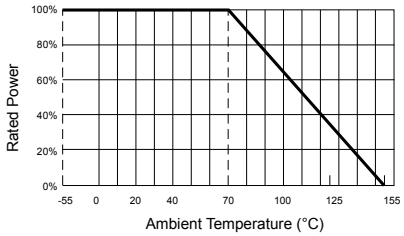
DIMENSIONS



unit: mm

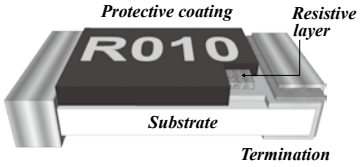
Type	L	W	C	D	T
FPF03	1.60±0.10	0.80±0.10	0.30±0.20	0.30±0.20	0.45±0.10
FPF05	2.00±0.10	1.25±0.10	0.40±0.20	0.40±0.20	0.50±0.10
FPF06	3.10±0.10	1.60±0.10	0.50±0.25	0.50±0.25	0.55±0.10
FPF12	3.10±0.10	2.60±0.10	0.50±0.25	0.50±0.25	0.55±0.10
FPF20	5.00±0.20	2.50±0.20	0.65±0.25	0.60±0.25	0.60±0.10
FPF25	6.40±0.20	3.10±0.20	0.60±0.25	1.80±0.25	0.60±0.15
FPF25 3W	6.40±0.20	3.10±0.20	0.45±0.25	1.80±0.25	1.10±0.20

POWER DE-RATING CURVE



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

■ Thick-Film Normal Type Chip Resistors



FEATURES

- Low resistance and high precision (1%).
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- Suitable for lead free soldering.
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APPLICATION

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PART NUMBER

FCF	06	F	T	-	R100	-	E
Type □□□	Size □□	Tolerance □	Packing □	Watt □	R Value □□□□	TCR □	Special Code □
FCF Thick Film Normal Low ohm	**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 – 8 Kpcs **Y** =Plastic tape – 16Kpcs	**"–"** Standard	**XXXX** 4 digits	**"–"** Standard	**E:** Standard Low R

RATING

Type		Normal Type Power Rating @ 70℃	Max. RCWV (mV)	Max. Overload Voltage (mV)	Resistance Tolerance (%)	Temperauture Coefficient of Resistance (TCR ; ppm/℃)	Resistance Range (mΩ) Min.	Resistance Range (mΩ) Max.	Standard Resistance Values
FCF03	**0603**	1/8W	337	754	±1%, ±5%	±200	100	910	E-24
						±400	50	91	
FCF05	**0805**	1/4W	477	1067	±1%, ±5%	±200	100	910	
						±400	50	91	
FCF06	**1206**	1/3W	551	1232	±1%, ±5%	±200	100	910	
						±400	50	91	
FCF12	**1210**	2/3W	779	1742	±1%, ±5%	±200	100	910	
						±400	50	91	
FCF20	**2010**	3/4W	826	1847	±1%, ±5%	±200	100	910	
						±400	50	91	
FCF25	**2512**	1W	954	2133	±1%, ±5%	±200	100	910	
						±400	50	91	

Note :
(1) RCWV = $(P \times R)^{1/2}$ or Max. RCWV listed above, whichever is lower.
RCWV：Rated Continue Working Voltage(V)，P：Rated Power(W)，R：Resistance Value(Ω)
(2) Special resistance value request please contact factory.

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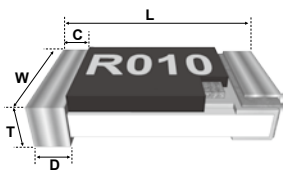
FPF	High Power	50mΩ~910mΩ	V	V
FCF-E	**Normal**	**50mΩ~910mΩ**		

DIMENSIONS



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FCF05	2.00±0.10	1.25±0.10	0.40±0.20	0.40±0.20	0.50±0.10
FCF06	3.10±0.10	1.60±0.10	0.50±0.25	0.50±0.25	0.55±0.10
FCF12	3.10±0.10	2.60±0.10	0.50±0.25	0.50±0.25	0.55±0.10
FCF20	5.00±0.20	2.50±0.20	0.60±0.25	0.60±0.25	0.60±0.10
FCF25	6.30±0.20	3.10±0.20	0.60±0.25	0.90±0.25	0.60±0.15

POWER DE-RATING CURVE