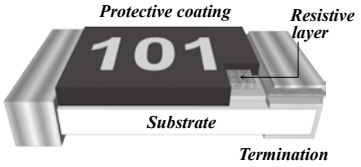
■ Thick Film High Power & Anti-Surge Chip Resistors



FEATURES

- High reliability and high precision (1%).
- Suitable for withstanding surge voltage.
- Suitable for lead free soldering.
- Meet AEC-Q200, RoHS compliant & Halogen Free.

APPLICATION

- Power supply.
- Automotive industry.
- Digital meter, Consumer electronics, M/B.
- LED Lighting.
- Industry control board.

PART NUMBER

FPS	08	F	T	F	1004	N	M
Type	Size	Tolerance	Packing	Watt	R Value	TCR	Special Code
□□□	□□	□	□	□	□□□□		
FPS Thick Film High Power & Anti-Surge	**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 Power boost code **E** =1/3W (0603) **F** =1/2W(0805) **G** =3/4W(1206)	**XXXX** **>=1R** **1%** 4 digit **5%** 3 digit ("_" means a blank)	No special code- Null special code- "–" Power boost code **N** =100ppm **Y** =150ppm **L** =200ppm	**"Null"** Standard **M:** Meet AEC-Q200

RATING

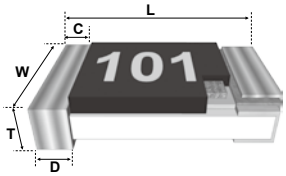
Type		Normal Type Power Rating @ 70℃	Max. RCWV	Max. Overload Voltage	Resistance Tolerance (%)	Temperauture Coefficient of Resistance (ppm/℃)	Resistance Range		Standard Resistance Values
							Min.	Max.	
FPS03	**0603**	1/8W *1/3W	50V 75V	100V 125V	±1%(F)	±100	10Ω	1MΩ	E96/E24
					±1%(F)	±200	1Ω	9.76Ω	E96/E24
					±5%(J)	±200	1Ω	1MΩ	E24
FPS05	**0805**	1/4W *1/2W	150V 200V	300V 300V	±1%(F)	±100	10Ω	1MΩ	E96/E24
					±1%(F)	±150	1Ω	9.76Ω	E96/E24
					±5%(J)	±200	1Ω	1MΩ	E24
FPS06	**1206**	1/2W *3/4W	200V 250V	400V 500V	±1%(F)	±100	1Ω	1MΩ	E96/E24
					±5%(J)	±200	1Ω	1MΩ	E24
FPS12	**1210**	1/2W	200V	400V	±1%(F)	±100	1Ω	1MΩ	E96/E24
					±5%(J)	±200	1Ω	1MΩ	E24
FPS20	**2010**	1W	200V	400V	±1%(F)	±100	1Ω	1MΩ	E96/E24
					±5%(J)	±200	1Ω	1MΩ	E24
FPS25	**2512**	2W	300V	600V	±1%(F)	±100	1Ω	1MΩ	E96/E24
					±5%(J)	±200	1Ω	1MΩ	E24

Type		Description	Max. Rated Current	Resistance Range
FPS03	**0603**	Zero Ohm，Jumper	≦ 2A	< 20mΩ
FPS05	**0805**	Zero Ohm，Jumper	≦ 4A	< 20mΩ
FPS06	**1206**	Zero Ohm，Jumper	≦ 4A	< 20mΩ
FPS12	**1210**	Zero Ohm，Jumper	≦ 4A	< 20mΩ
FPS20	**2010**	Zero Ohm，Jumper	≦ 6A	< 20mΩ
FPS25	**2512**	Zero Ohm，Jumper	≦ 6A	< 20mΩ

Note :
(1) 2512 2W loading with total solder-pad and trace size of 300 mm^2
(2) 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))
(3) Solder-pad and trace size should be evaluated and board surface temperature should not.
(4) Exceed 105℃ when applied full rated power.

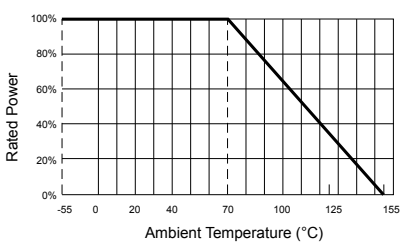
DIMENSIONS

unit: mm



Size	L	W	C	D	T
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	0.65±0.25	0.60±0.25	0.60±0.10
2512	6.40±0.20	3.10±0.20	0.60±0.25	1.80±0.25	0.60±0.15

POWER DE-RATING CURVE



SURGE PERFORMANCE