

The TFS Series has been specifically developed to absorb large amounts of energy by efficient use of its compact mass. Ideal for medical surge protection applications, these thick film resistors offer non-inductive performance in an axial package.

Uses include power supply conversion, electron microscopes, X-ray systems, high-resolution CRT displays, and geophysical instrument related products.

SPECIFICATIONS

Material

Resistive Element: Thick Film
Encapsulation: Screen Printed Glass

Electrical

Resistance Value: 100Ω up to 100KΩ

Temperature Coefficient: 100ppm/°C

Tolerance: 1%, 2%, 5%, 10%

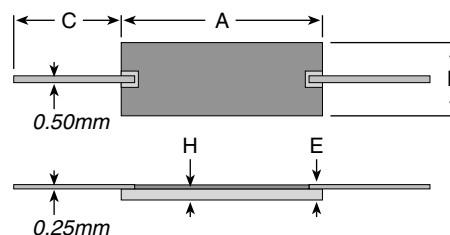
Operating Temperature: -55°C to +200°C

Test: VDE 0750 (Pulse Duration 10 msec)



TFS Series

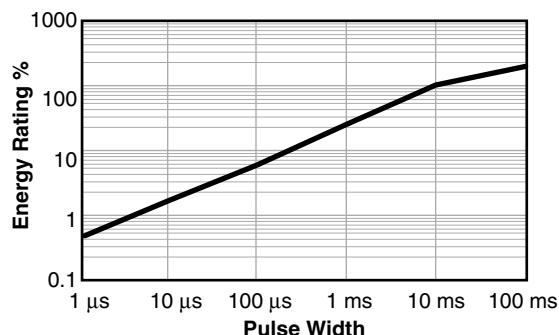
Surge Capable Thick Film Non Inductive



FEATURES

- Appropriate for medical surge protection applications
- Ideal to replace standard carbon composition resistors
- Custom dimensions, values, tolerances and characteristics available
- For energy rating information, visit www.ohmite.com

MAXIMUM INDIVIDUAL PULSE RATING



NOTES

- Momentary overload capability is 5 times rated power for 1 second or 2 times rated power for 5 seconds. Always verify designs with pulse and surge conditions through thorough testing of the design at maximum operating temperature and maximum pulse loading (or some margin above maximum pulse loading).
- Damage to the resistor by excessive pulse loading is generally indicated by an increasing resistance of the resistor.
- Energy ratings are based on single pulses (at least 1 minute between pulses).
- For multiple pulse applications the energy pulse rating should be reduced and the average power should not exceed the nominal power rating of the selected model.

Our friendly Customer Service team can be reached at 866-9-OHMITE

Type	U (KV)	Energy* (J)	Power (W)	Dimensions (mm)				
				A	B	C	H	E
TFSA	3	6	0.5	9	5.5	10	0.7	1.1
TFSB	3.5	9	0.5	11	5.5	10	0.7	1.1
TFSC	4	11	0.75	13	5.5	10	0.7	1.1
TFSD	7	33	1	21	8	10	0.9	1.3
TFSE	7	44	1.5	21	10.5	10	0.9	1.3
TFSF	11	55	2	26	10.5	10	0.9	1.3

*Published energy rating is for 10ms pulse. For shorter pulses energy rating has to be derated according to Max. Individual Pulse Rating chart (left) and Single Pulse Energy Rating considerations (see ohmite.com).

ORDERING INFORMATION

RoHS Compliant

T F S A 1 0 0 K J E

Series	Energy Rating joules	Ohm Value Example: 100R = 100Ω 2K40 = 2400Ω	Tolerance F = 1% G = 2% J = 5% K = 10%
A = 6	D = 33		
B = 9	E = 44		
C = 11	F = 55		

STANDARD PART NUMBERS FOR TFS SERIES

Ohms	Tol.	6 Joules 0.5 Watts	9 Joules 0.5 Watts	11 Joules 0.75 Watts	33 Joules 1 Watts	44 Joules 1.5 Watts	55 Joules 2 Watts
100	1%	TFSA100RFE					
100	5%		TFSB100RJE		TFSD100RJE		TFSF100RJE
220	1%	TFSA220RFE					
270	5%	TFSA270RJE		TFSC270RJE	TFSD270RJE		TFSE270RJE
470	1%	TFSA470RFE					
470	5%		TFSB470RJE			TFSE470RJE	
680	5%	TFSA680RJE		TFSC680RJE		TFSE680RJE	TFSF680RJE
750	5%		TFSB750RJE		TFSD750RJE		TFSE750RJE
1,000	1%	TFSA1K00FE					
1,000	5%	TFSA1K00JE	TFSB1K00JE	TFSC1K00JE	TFSD1K00JE	TFSE1K00JE	TFSF1K00JE
1,500	5%	TFSA1K50JE		TFSC1K50JE	TFSD1K50JE		TFSF1K50JE
2,200	1%	TFSA2K20FE					
2,700	5%		TFSB2K70JE			TFSE2K70JE	
4,700	1%	TFSA4K70FE					
4,700	5%	TFSA4K70JE		TFSC4K70JE	TFSD4K70JE		
4,990	1%	TFSA4K99FE					
5,000	5%	TFSA75K0JE					
6,800	5%		TFSB6K80JE			TFSE6K80JE	
10,000	1%	TFSA10K0FE					
10,000	5%	TFSA10K0JE	TFSB10K0JE	TFSC10K0JE	TFSD10K0JE		TFSF10K0JE
16,000	5%						
20,000	1%	TFSA20K0FE					
20,000	5%		TFSB20K0JE		TFSD20K0JE		TFSF20K0JE
22,000	1%	TFSA22K0FE					
27,000	5%	TFSA27K0JE		TFSC27K0JE		TFSE27K0JE	
47,000	1%	TFSA47K0FE					
50,000	5%	TFSA50K0JE					
51,000	5%		TFSB51K0JE	TFSC51K0JE	TFSD51K0JE		TFSF51K0JE
75,000	5%					TFSE75K0JE	
100,000	1%	TFSA100KFE					
100,000	5%		TFSB100KJE	TFSC100KJE	TFSD100KJE		TFSF100KJE

Check product availability at www.ohmite.com