

Type SM Series

Key Features

- **■** Low Profile Design
- Available on Tape
- Very Wide Value Range
- Ideal for Power Circuitry
- Available in 2,3 or 5 Watts
- **Flameproof Coating UL94V0**



TE Connectivity (TE) introduces a surface mount power resistor suited to meet today's circuit design needs. Each size offers low profile case design with flexible tinned copper terminations for reliable solder joints. All styles utilize a fully welded construction technique, unlike other designs that rely solely on tinned termination onnections. These features allow the SM Series to withstand the higher temperatures associated with reflow, vapour phase, or infrared (IR) manufacturing processes without degradation.

Characteristics - Electrical

	SM (Wire)	SM (Metal Film)	
Values SM_2:	R10 – 200R	201R – 2M	
Values SM_3:	R10 – 300R	301R – 2M	
Values SM_5:	R10 – 500R	501R – 2M	
Value Grid:	E24		
Resistance Tolerance:	1% or 5%		
Power Rating @ 25°C SM_2:	2.0 Watts		
Power Rating @ 25°C SM_3:	3.0 Watts		
Power Rating @ 25°C SM_5:	5.0 Watts		
Derating:	See Curve Below		
Max Operating Voltage SM_2:	300 Volts		
Max Operating Voltage SM_3:	500 Volts		
Max Operating Voltage SM_5:	500 Volts		

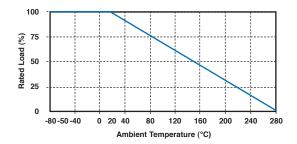
Characteristics - Environmental

Test	Condition	SM (Wire)	SM (Metal Film)
Temperature Coefficient of Resistance:	-55°C – +200°C	± 200ppm /°C	± 100ppm /°C
Short Time Overload:	5 times of rated wattage for 5 sec.	± 1%	± 0.5%
Rated Load:	Rated voltage for 30 minutes	± 1%	± 0.5%
Insulation Resistance:	500VDC	10,000 ΜΩ	10,000 MΩ
Load Life:	70°C 1.5 hrs on 0.5 hrs off for 1000 hrs	± 2%	± 1%
Humidity Load Life:	40°C ±2°C @ 90-95% RH 500 hrs 1.5 hrs on 0.5 hrs off	± 2%	± 1%
Voltage Withstand:	500VAC for 60 seconds	No Physical damage	
Solderability:	235°C ±5°C for 2 seconds	95% coverage	
Resistance to Soldering Heat:	270°C ±5°C for 10 ±1seconds	Resistance value change within ± 1%	

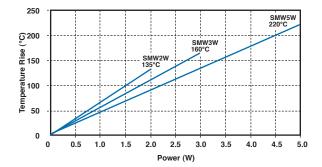


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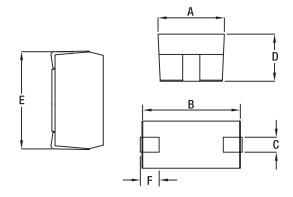
Power Derating



Maximum Allowable Body Temperature



Dimensions

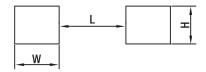


	A ±0.3	B ±0.3	C ±0.3	D ±0.3	E max	F±0.3	Qty Per Reel
SM_2	4.0	6.7	1.4	3.55	7.9	1.5	2000
SM_3	5.5	10.5	1.7	5.0	12.0	2.3	1000
SM_5	7.3	13.5	1.7	6.8	17.0	2.5	1000

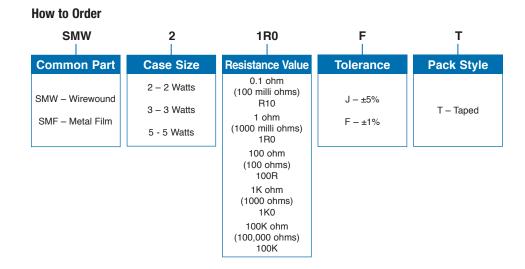


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Recommended Pad Dimensions



	W Nom.	H Nom.	L Nom.
SM_2	2.6	2.9	2.8
SM_3	4.0	3.4	6.0
SM_5	4.5	3.4	11.0



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TE Connectivity:

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SMF2560R5
SMF53K3JT
SMF210KJT
SMF2120KJT
SMF215KJT
SMF21K8JT
SMF239KJT
SMF23K9JT

SMF2560KJT
SMF268KJT
SMF2820RJT
SMF3100KJT
SMF3180KJT
SMF31K2JT
SMF31M0JT

SMF3390RJT
SMF3680RJT
SMF38K2JT
SMF5110KJT
SMF515KJT
SMF5820RJT
SMF53K0JT
SMF520KJT

SMF55K6JT
SMF52M0JT
SMF5470KJT
SMF5680RJT
SMF3470RFT
SMF31K8FT
SMF382KJT

SMF2560RJT
SMW32R2JT
SMF339KJT
SMF582KJT
SMW5R051JT
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