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# 5.0SMDJ Series

5kW, 16- 100V Surface Mount Transient Voltage Suppressor

DO-214AB (SMC)



Taiwan Semiconductor officially introduces its 5000 watts High Power Surge Capability Uni-Directional TVS in DO-214AB (SMC) with reliable thermal performance up to  $T_{JMAX}=175^{\circ}\text{C}$ .

TSC's 5.0 SMDJ series offer total 26 new Part Numbers with working stand-off voltages from 16V to 100V, excellent clamping capability from 26V to 162V.

The whole series are AEC-Q101 qualified.

<b>ABSOLUTE MAXIMUM RATINGS</b> ( $T_A = 25^{\circ}\text{C}$ unless otherwise noted)			
<b>PARAMETER</b>	<b>SYMBOL</b>	<b>VALUE</b>	<b>UNIT</b>
Non-repetitive peak impulse power dissipation with 10/1000us waveform	$P_{PPSM}$	5000	W
Steady state power dissipation at $T_L=75^{\circ}\text{C}$	$P_{tot}$	6.25	W
Forward Voltage @ $I_F=100\text{A}$ for Uni-directional only	$V_F$	5	V
Junction temperature	$T_J$	-55 to +175	$^{\circ}\text{C}$
Storage temperature	$T_{STG}$	-55 to +175	$^{\circ}\text{C}$

## Features:

- High Power Surge Capability
- Reliable thermal performance
- Ideal for automated placement
- Glass passivated junction
- Built-in strain relief
- Excellent clamping capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition
- AEC-Q101 qualified

## Application:

- Immunization of sensitive devices in automotive, telecommunications, consumer electronics, and industrial equipment from electrostatic discharge (ESD) and transient voltages induced by load switching and lightning on ICs, MOSFETS and Sensors.

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## Comparable Alternative:

TSC	Package	V <sub>WM</sub> (V)	Vishay	Littelfuse
5.0SMDJ16A	SMC	16	5KASMC16A/SMC5K16A	5.0SMDJ16A
5.0SMDJ17A	SMC	17	5KASMC17A/SMC5K17A	5.0SMDJ17A
5.0SMDJ18A	SMC	18	5KASMC18A/SMC5K18A	5.0SMDJ18A
5.0SMDJ20A	SMC	20	5KASMC20A/SMC5K20A	5.0SMDJ20A
5.0SMDJ22A	SMC	22	5KASMC22A/SMC5K22A	5.0SMDJ22A
5.0SMDJ24A	SMC	24	5KASMC24A/SMC5K24A	5.0SMDJ24A
5.0SMDJ26A	SMC	26	5KASMC26A/SMC5K26A	5.0SMDJ26A
5.0SMDJ28A	SMC	28	5KASMC28A/SMC5K28A	5.0SMDJ28A
5.0SMDJ30A	SMC	30	5KASMC30A/SMC5K30A	5.0SMDJ30A
5.0SMDJ33A	SMC	33	5KASMC33A/SMC5K33A	5.0SMDJ33A
5.0SMDJ36A	SMC	36	5KASMC36A/SMC5K36A	5.0SMDJ36A
5.0SMDJ40A	SMC	40	5KASMC40A/SMC5K40A	5.0SMDJ40A
5.0SMDJ43A	SMC	43	5KASMC43A/SMC5K43A	5.0SMDJ43A
5.0SMDJ45A-5.0SMDJ85A	SMC	45 - 85	SMC5K45A – SMC5K85A	5.0SMDJ45A-5.0SMDJ85A
5.0SMDJ100A	SMC	100	-	5.0SMDJ100A

## Package Information:

Outline (Package)	Reel	Reel Size	Inner Box	Carton	Carton Size	Gross Weight	Packing Code
	(pcs)	(inch)	(pcs)	(pcs)	(mm)	(kg/ carton)	
DO-214AB (SMC)	850	7" plastic	3,400	17,000	385*210*230	7.5	R7
	3,000	13" paper	12,000	60,000	360*355*245	13.4	R6
	3,000	13" plastic	12,000	60,000	360*355*245	13.2	M6

Samples 5.0SMDJ Series can be ordered on Product Detail page:  
<http://www.taiwansemi.com/en/products/details/5.0SMDJ16A>

For pricing and more information, please contact TSC sales or authorized distributors worldwide: [www.taiwansemi.com/en/contact](http://www.taiwansemi.com/en/contact)