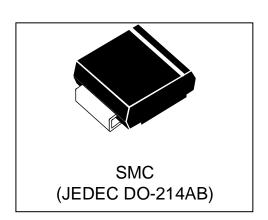


WSxxP30SMC(-B)-AT

Automotive Load Dump Protection TVS

Features

- 3000 watts Peak Pulse Power (10/1000µs)
- Unidirectional and Bidirectional Protection
- Fast Response Time: Typically < 1ns
- Excellent Clamping Capability
- Built-in Strain relief
- Low inductance
- Low profile package
- High temperature solder:260°C/10 seconds at terminal
- AEC-Q101 compliant



Mechanical Characteristics

- JEDEC DO-214AB package
- Molding compound flammability rating:
 UL 94V-0
- Marking : Marking Code
- Packaging: Tape and Reel per EIA 481
- RoHS Compliant

Applications

- Auto power system
- Car audio and video
- Automotive instrument
- Car GPS
- Can-bus

Absolute Maximum Rating					
Rating	Symbol	Value	Units		
Peak Pulse Power (tp =10/1000µs) (see Note1&2)	P _{PPM}	3000	Watts		
Peak pulse current (10/1000μs) (see Note2)	Іррм	See Electrical Characteristics	А		
Power Dissipation on infinite heat sink T _L = 50 °C (Fig 4)	P _D	6.5	W		
Operating Junction Temperature range	TJ	-65 to + 150	$^{\circ}$ C		
Storage Temperature range	T _{STG}	-65 to + 150	$^{\circ}$		

Note1: Peak Pulse Power Rating as Pulse Width ,per Fig1.

Note2: Peak Pulse Power or Current Derated above T_A=25°C Per Fig. 2 and Non-Repetitive Current Pulse, Per Fig.3.

Electrical Characteristics

Part	art Number M		Marking Sta o Volt		Reverse Breakdown Stand Voltage off Vsr@lr Voltage (Volts) Vrwm				Test Current I _T	Maximum Clamping Voltage V _c @I _{PP}	Maximum Peak Pulse Current	Maximum Reverse Leakage I _R @V _{RWM}
UNI- POLAR	BI- POLAR	UNI- POLAR	BI- POLAR	(Volts)	MIN	MAX	(mA)	(Volts)	I _{pp} (Amps)	(µ A)		
WS15P30SMC-AT	WS15P30SMC-B-AT	DYLP	DZLP	15	16.70	18.50	1	24.4	123.0	2		
WS16P30SMC-AT	WS16P30SMC-B-AT	DYLQ	DZLQ	16	17.80	19.70	1	26.0	115.4	2		
WS18P30SMC-AT	WS18P30SMC-B-AT	DYLS	DZLS	18	20.00	22.10	1	29.2	102.7	2		
WS20P30SMC-AT	WS20P30SMC-B-AT	DYMY	DZMZ	20	22.20	24.50	1	32.4	92.6	2		
WS22P30SMC-AT	WS22P30SMC-B-AT	DYMM	DZMM	22	24.40	26.90	1	35.5	84.5	2		
WS24P30SMC-AT	WS24P30SMC-B-AT	DYMO	DZMO	24	26.70	29.50	1	38.9	77.1	2		
WS26P30SMC-AT	WS26P30SMC-B-AT	DYMQ	DZMQ	26	28.90	31.90	1	42.1	71.3	2		
WS28P30SMC-AT	WS28P30SMC-B-AT	DYMS	DZMS	28	31.10	34.40	1	45.4	66.1	2		
WS30P30SMC-AT	WS30P30SMC-B-AT	DYNY	DZNZ	30	33.30	36.80	1	48.4	62.0	2		
WS33P30SMC-AT	WS33P30SMC-B-AT	DYNN	DZNN	33	36.70	40.60	1	53.3	56.3	2		
WS36P30SMC-AT	WS36P30SMC-B-AT	DYNQ	DZNQ	36	40.00	44.20	1	58.1	51.6	2		
WS40P30SMC-AT	WS40P30SMC-B-AT	DYOY	DZOZ	40	44.40	49.10	1	64.5	46.5	2		
WS43P30SMC-AT	WS43P30SMC-B-AT	DYON	DZON	43	47.80	52.80	1	69.4	43.2	2		

Typical Characteristics

Figure 1. Peak Pulse Power Rating Curve

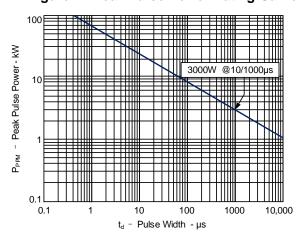


Figure 2. Pulse Derating Curve

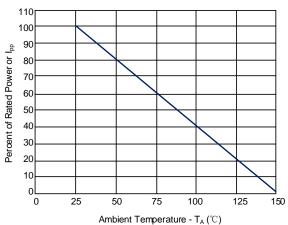


Figure 3. Pulse Waveform

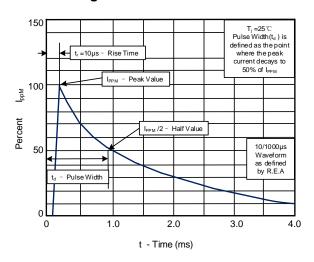
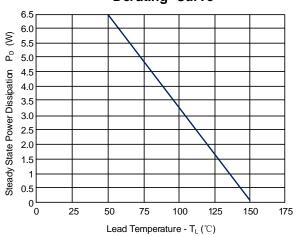
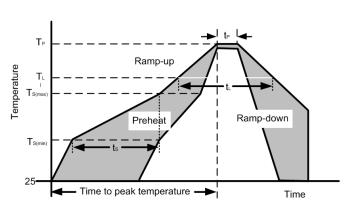


Figure 4. Steady State Power Dissipation Derating Curve



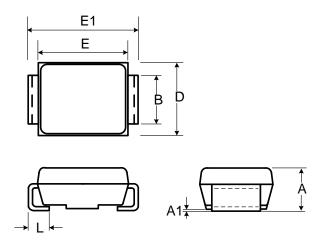
Soldering Parameters

Reflow Condition			
Temperature Min (T _{s(min)})		150°C	
Pre Heat	Temperature Max (T _{s(max)})	200°C	
ricat	Time (min to max) (t _s)	60-190 s	
Average ramp up rate (Liquidus Temp) (T _L) to peak		3°C/s max	
Ts(max)	to TL - Ramp-up Rate	3°C/s max	
Defless	Temperature(T _L) (Liquidus)	217°C	
Reflow	Temperature (t∟)	60-150 s	
Peak Temperature (T _P)		260 ^{+0/-5} °C	
Time within actual peak Temperature (t _p)		20-40 s	
Ramp-down Rate		6°C/s max	
Time 25°C to peak Temperature (T _P)		8 minutes max	
Do not exceed		260°C	

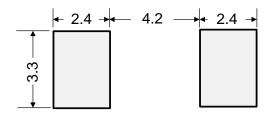


Outline Drawing - SMC (DO-214AB)

Dof (mm)	Millimeters			
Ref. (mm)	Min.	Max.		
Α	2.06	2.70		
A1	-	0.30		
В	2.90	3.20		
E	6.60	7.40		
E1	7.75	8.13		
D	5.59	6.22		
L	0.76	1.52		



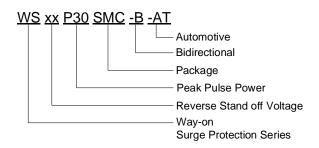
Recommended Solder Pad Layout

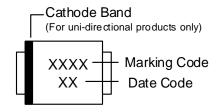


Dimensions in mm

Part Numbering System

Part Marking System





Package Information

Package Type	Description	Quantity (pcs)
SMC(DO-214AB)	Tape & Reel -16mm/13" tape	3000

Contact Information

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WAYON website: http://www.way-on.com

For additional information, please contact your local Sales Representative.

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Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time. Users should verify actual device performance in their specific applications.

单击下面可查看定价,库存,交付和生命周期等信息

>>WAY-ON(维安)