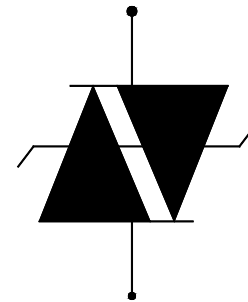


## Features

- For surface mounted applications to optimize board space
- Low profile package
- Bidirectional crowbar protection
- Low leakage current : I = 5uA max
- Low on-state voltage
- Low Capacitance
- Response Time is < 1us
- YD/T 950 IEC 61000-4-5
- YD/T 993 ITU K.20/21
- YD/T 1082 TIA-968-A
- GR 1089 Intra-building
- Solid-state silicon technology
- Meets MSL 1 Requirements
- ROHS compliant



**SMB**



**Schematic Diagram**

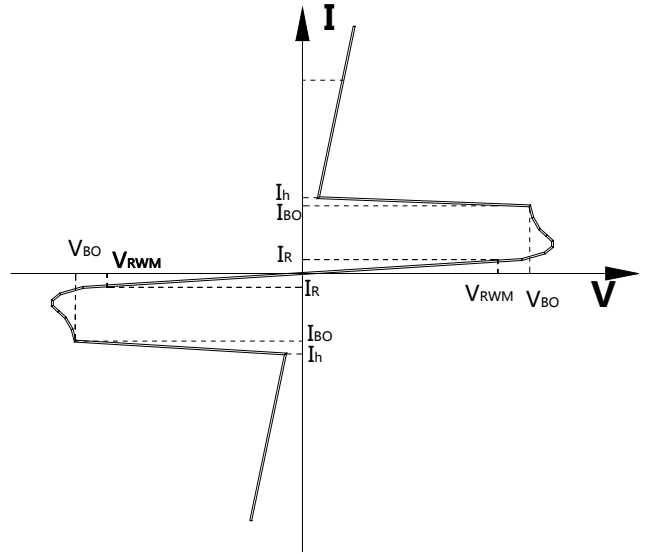
Maximum Ratings and Electrical Characteristics				
Symbol	Parameter		Value	Unit
I <sub>PP</sub>	Non-repetitive peak pulse current	10/1000 us	100	A
		5/310 us	150	
		8/20 us	400	
V <sub>PP</sub>	Non-repetitive peak pulse voltage	10/700us	6000	V
V <sub>ESD</sub>	ESD Rating per IEC61000-4-2:	Contact	8	KV
		Air	15	
T <sub>S</sub>	Storage temperature range		-40 to +150	°C
T <sub>j</sub>	Maximum junction temperature		150	°C

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be affected.

\*Other voltages may be available upon request.

### Electrical Parameters

Symbol	Parameter
$V_{RM}$	Peak off-state voltage
$I_{RM}$	Off-state current
$V_S$	Switching voltage
$I_S$	Switching current
$V_T$	On-state voltage
$I_T$	On-state current
$I_H$	Holding current
$C_O$	Off-state capacitance



Parameter	TestsConditions	Min.	Typ.	Max.	Unit
$V_{RM}$	$I_{RM}=1\mu A$	320			V
$I_{RM}$	$V_{RM}$			5	$\mu A$
$V_S$	1KV/ $\mu s$			400	V
$V_T$	$I_T=2.2A$			4	V
$I_H$	10A, 10/1000 $\mu s$		150		mA
$C_O$	2V, 1MHz		65	100	pF
$I_S$				800	mA

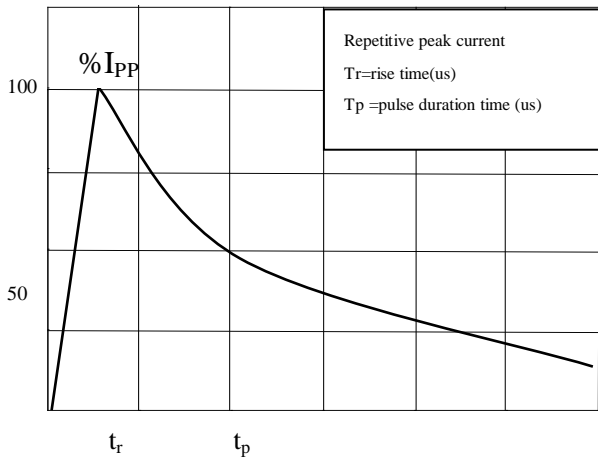
**Typical electrical characterist applications**
**Rating and Characteristics Curves**


Fig.1 Pulse Waveform (5/310us)

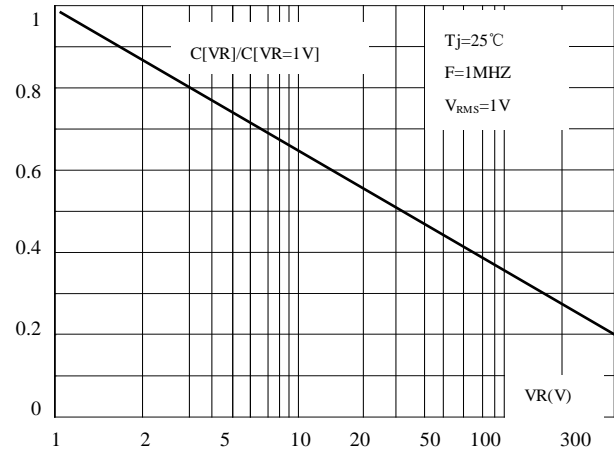


Fig. 2 Relation Variation Of Junction Capacitance Versus Reverse Voltage Applied (Typical Values)

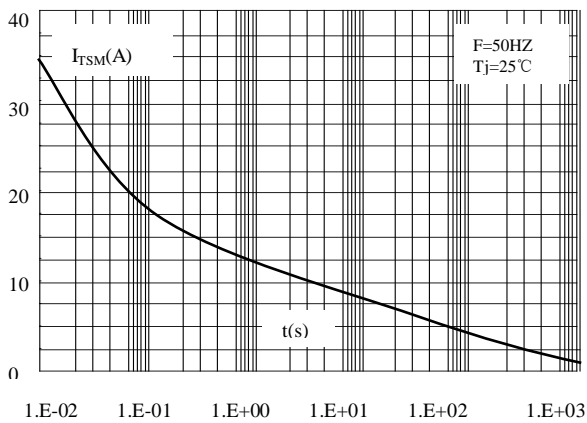


Fig.3 Non Repetitive Surge Peak On-State Current Versus Overload Duration

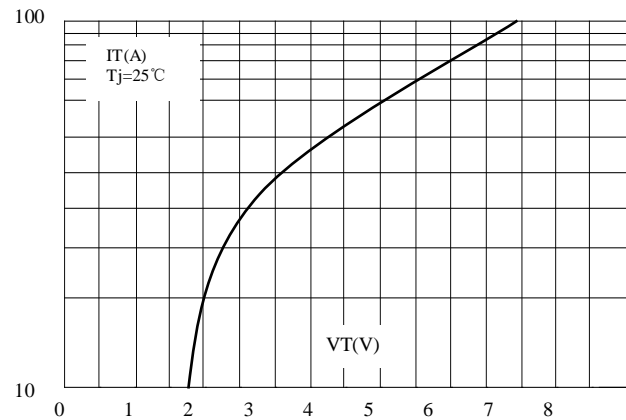


Fig.4 On-State Voltage Versus On-State Current (Typical Values)

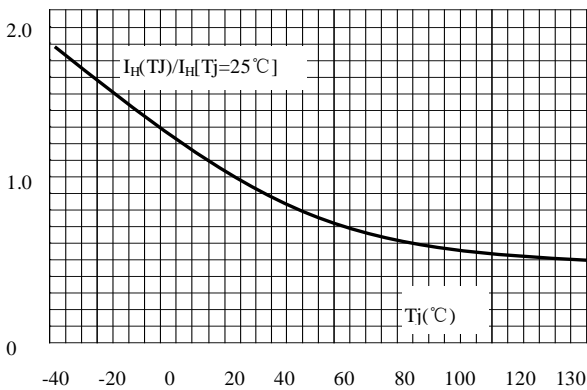


Fig.5 Relative Variation of Hold Current Versus Junction Temperature

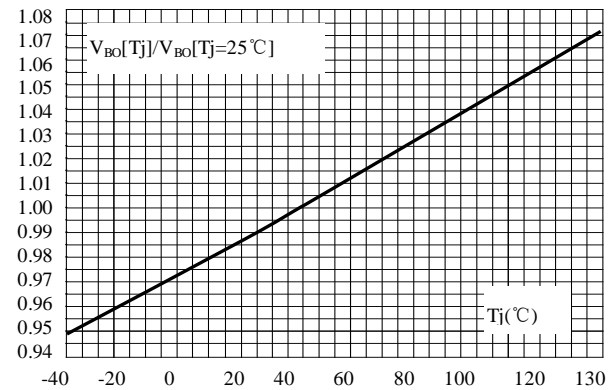


Fig.6 Relative Variation of Break Over Voltage Versus Junction Temperature

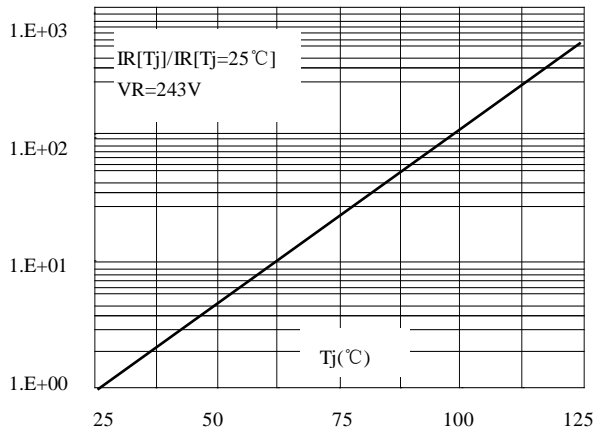
**Typical electrical characterist applications**
**Rating and Characteristics Curves**


Fig.7 Relative Variation Of Leakage Current Versus Reverse Voltage (Typical Values)

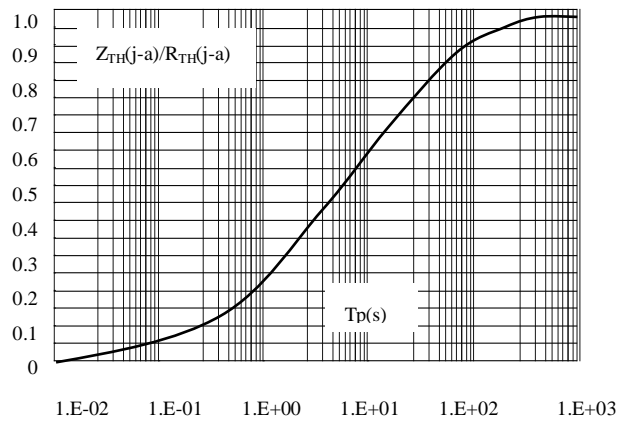
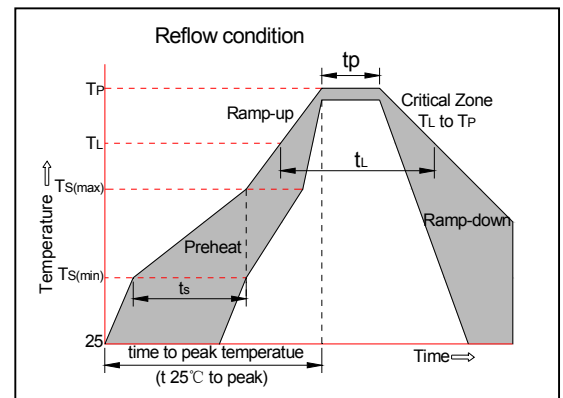


Fig.8 Variation Of Thermal Impedance Junction To Ambient Versus Pulse Duration

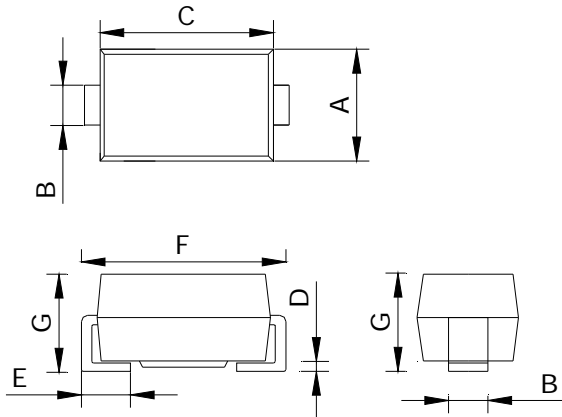
**SOLDERING PARAMETERS**

Reflow Condition		Pb-Free assembly
Pre Heat	-Temperature Min ( $T_{s(min)}$ )	+150°C
	-Temperature Max( $T_{s(max)}$ )	+200°C
	-Time (Min to Max) ( $t_s$ )	60-180 secs.
Average ramp up rate (Liquid us Temp ( $T_L$ )to peak)		3°C/sec. Max
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature( $T_L$ )(Liquid us)	+217°C
	-Temperature( $t_L$ )	60-150 secs.
Peak Temp ( $T_p$ )		+260(+0/-5)°C
Time within 5°C of actual Peak Temp ( $t_p$ )		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp ( $T_p$ )		8 min. Max
Do not exceed		+260°C

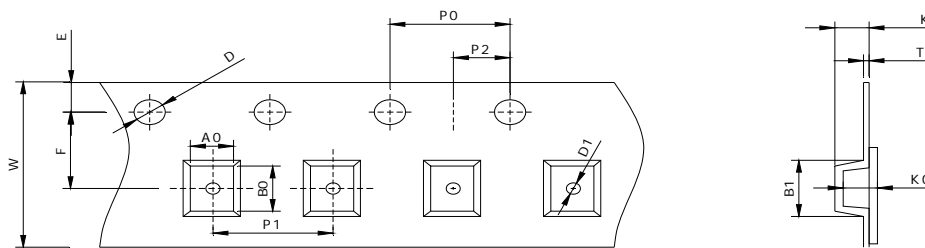


**Package information**
**SMB**
**SMB Mechanical Data**

- Case: SMB
- Case Material: Molded Plastic. UL Flammability
- Classification Rating 94V-0
- Weight: 0.003 ounces, 0.096 gram

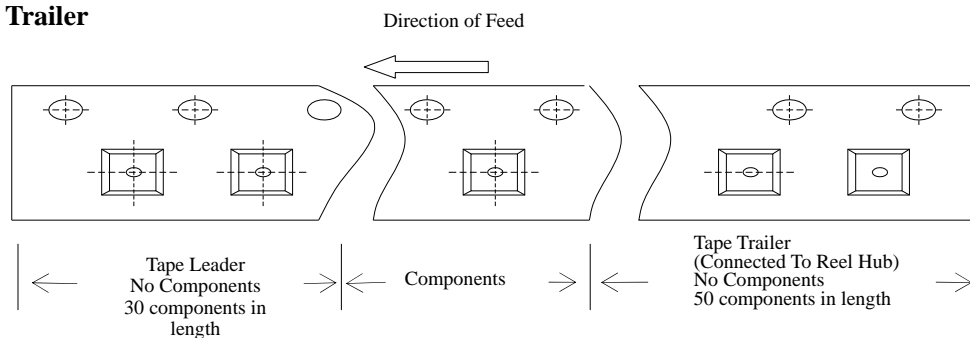


DIM	Millimeters			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.30	3.62	3.94	0.130	0.142	0.155
B	1.95	2.08	2.20	0.077	0.082	0.087
C	4.06	4.40	4.57	0.160	0.173	0.180
D	0.125	0.20	0.305	0.005	0.008	0.012
E	0.76	1.14	1.52	0.030	0.045	0.06
F	4.95	5.40	5.59	0.194	0.213	0.22
G	2.05	2.30	2.50	0.080	0.090	0.098

**SMB**
**SMB Reel Dim**


A0	B0	B1	D	D1	E	F	K0	T	W	P0	P1	P2
4.0	5.9	6.1	1.5	1.5	1.75	5.5	3.0	0.50	12.0	4.0	8.0	2.0

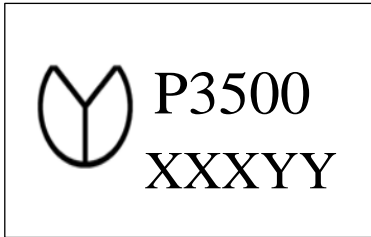
Dimension is in mm

**Leader and Trailer**


The LEADER is a minimum of 30 components in length and it consists of empty cavities with sealed cover tape  
 The TRAILER is a minimum of 50 components in length and it consists of empty cavities with sealed cover tape.



### Marking Codes



### Ordering Information

Device	Qty per Reel	Reel Size
P3500SCX	3000	13 Inch

**Note:**

- (1) "P3500X" is part number, fixed.
- (2) "XXX" is the last 3 characters of the wafer's Lot No.,  
"YY" is internal code.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [ESD Suppressors / TVS Diodes](#) category:*

*Click to view products by [Shenzhen JingYang](#) manufacturer:*

Other Similar products are found below :

[60KS200C](#) [D18V0L1B2LP-7B](#) [D5V0F4U5P5-7](#) [NTE4902](#) [P4KE27CA](#) [P6KE11CA](#) [P6KE8.2A](#) [SA60CA](#) [SA64CA](#) [SMBJ12CATR](#)  
[SMBJ33CATR](#) [SMBJ6.5A](#) [SMBJ8.0A](#) [ESD101-B1-02ELS](#) [E6327](#) [ESD112-B1-02EL](#) [E6327](#) [ESD7451N2T5G](#) [19180-510](#) [CPDT-5V0USP-](#)  
[HF](#) [3.0SMCJ33CA-F](#) [3.0SMCJ36A-F](#) [HSPC16701B02TP](#) [JANTX1N6126A](#) [D3V3Q1B2DLP3-7](#) [D55V0M1B2WS-7](#) [SCM1293A-04SO](#)  
[ESD200-B1-CSP0201](#) [E6327](#) [SM12-7](#) [CEN955](#) [W/DATA](#) [VESD12A1A-HD1-GS08](#) [CPDQC5V0-HF](#) [D1213A-01LP4-7B](#) [ESD101-B1-02EL](#)  
[E6327](#) [AOZ8808DI-03](#) [5KP15A](#) [5KP48A](#) [5KP90A](#) [ESD3V3D7-TP](#) [15KPA36A-LF](#) [P4KE56CA](#) [P4KE68A](#) [P4KE91CATR](#) [P6KE120A](#)  
[P6KE13CA](#) [P6KE43CA](#) [P6KE6.8CA](#) [P6KE8.2](#) [P6SMBJ20CA](#) [JANTX1N6072A](#) [SR2835ESKG](#) [SA90CA](#)