



## SSCT58V52DB

Surface Mount Bidirectional Transient Voltage Suppressors

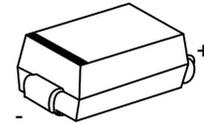
### ● Description

TVS diodes can be used in a wide range of applications which like consumer electronic products, automotive industries, munitions, telecommunications, aerospace industries, and intelligent control systems.

### ● Features

- ✧ Glass passivated or planar junction
- ✧ Excellent clamping capability
- ✧ SMB/DO-214AA Package
- ✧ Working voltage:58V
- ✧ Low profile package and low inductance
- ✧ Repetition rate (duty cycle):0.01%
- ✧ Response Time is Typically < 1 ns
- ✧ less than 5.0ns form 0 Volts to BV min
- ✧ Hight temperature soldering: 260°C/10s at terminals
- ✧ Plastic package has Underwrites Laboratory Flammability 94V-0
- ✧ For surface mounted applications in order to optimize board space

### ● PIN configuration

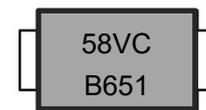


**SMB/DO-214AA**



Bi-directional

**Circuit Diagram**



**Marking (Top View)**

### ● Applications

- ✧ POE application
- ✧ I/O Interface
- ✧ AC/DC Power supply
- ✧ Low frequency signal transmission line (RS232, RS485, etc.)

### ● Mechanical Characteristics

- ✧ Case Material: “Green” Molding Compound
- ✧ UL Flammability Classification Rating 94V-0
- ✧ Polarity: Color band denotes cathode except bi-directional models
- ✧ Terminal Connections: See Diagram Below
- ✧ Marking Information: See Below
- ✧ Device meets MSL 3 requirements



- **Absolute maximum rating @T<sub>A</sub> = 25°C**

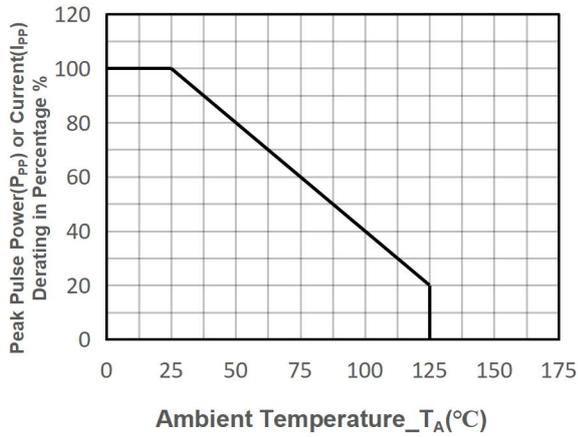
Parameter	Symbol	Value	Units
Peak Pulse Current(8/20μs)	I <sub>PP</sub>	650	A
Peak Pulse Current(10/700μs)	I <sub>PP</sub>	100	A
Peak Pulse Current(10/1000μs)	I <sub>PP</sub>	40	A
Operating Temperature Range	T <sub>J</sub>	-55 ~ 150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 ~ 150	°C

- **Electrical Characteristics @T<sub>A</sub> = 25°C**

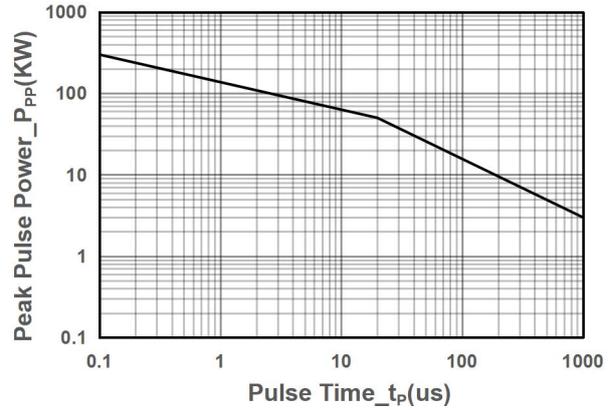
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Peak Reverse Working Voltage	V <sub>RWM</sub>				58	V
Breakdown Voltage	V <sub>BR</sub>	I <sub>T</sub> = 1mA	64.4		71.2	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>RWM</sub> =58V			10	μA
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =650A, t <sub>P</sub> = 8/20μs		75	80	V
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =100A, t <sub>P</sub> = 10/700μs		75	80	V
Clamping Voltage	V <sub>C</sub>	I <sub>PP</sub> =40A, t <sub>P</sub> =10/1000μs		60	65	pF



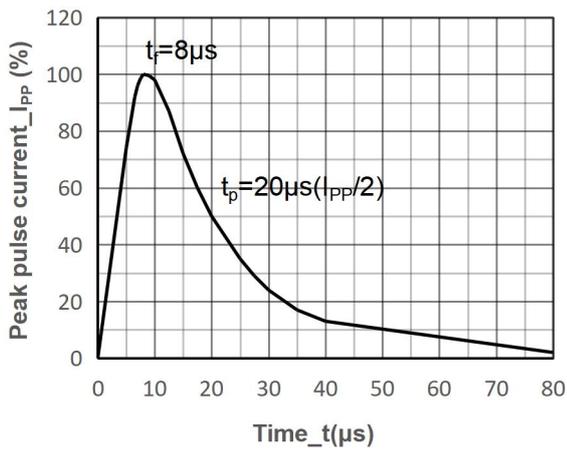
● Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise Specified)



Pulse Derating Curve



Peak Pulse Power vs. Pulse Time



8/20µs Pulse Waveform



## ● Package Information

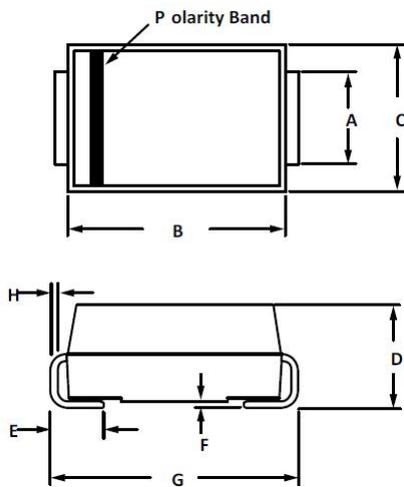
### Ordering Information

Device	Package	Qty per Reel	Reel diameters(inch)
SSCT58V52DB	SMB/DO-214AA	3000	13

### Mechanical Data

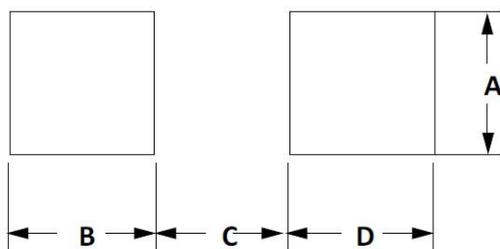
Case: SMB/DO-214AA

Case Material: Molded Plastic. UL Flammability



DIM	Millimeters	
	Min	Max
A	1.90	2.1
B	4.22	4.70
C	3.40	3.94
D	2.00	2.50
E	0.90	1.42
F	0.00	0.23
G	5.21	5.59
H	0.15	0.31

### Recommended Pad outline (Unit: mm)



DIM	Millimeters	
	Min	Max
A	2.15	-
B	1.45	-
C	-	2.55
D	1.45	-



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