

# DIODES SMBJxxxD Series

TransZorb<sup>®</sup> TVS Offer More Precise Breakdown Voltage, Higher Peak Pulse Surge Current Capability, and Lower Clamping Voltage



### **KEY BENEFITS**

- Designed to protect sensitive electronics against voltage transients induced by inductive load switching and lightning
- Tightened breakdown voltage tolerance of ± 3.5 %
- Low-profile DO-214AA (SMBJ) package
- High peak pulse surge currents from 2.03 A to 65.9 A
- Excellent clamping capability from 9.1 V to 301 V
- High surge capability to 600 W at 10/1000 µs
- Series consists of 47 TVS with stand-off voltages from 5 V to 188 V
- Available with uni-directional polarity
- Temperature range from -55 °C to +150 °C
- Ideal for automated placement
- RoHS-compliant and halogen-free

# **APPLICATIONS**

• DC adapter power line protection, power supply snubber circuits, and general voltage surge protection in consumer, computer, industrial, and telecommunication equipment

# RESOURCES

- Datasheet: please visit <u>www.vishay.com/ppg?87606</u>
- For technical questions, contact <u>DiodesAmericas@vishay.com</u>, <u>DiodesEurope@vishay.com</u>, or <u>DiodesAsia@vishay.com</u>
- Material categorization: For definitions of compliance, please see <u>www.vishay.com/doc?99912</u>



PRODUCT SHEET

1/2

VMN-PT0458-1507



# DIODES SMBJxxxD Series

# Surface Mount TRANSZORB® **Transient Voltage Suppressors**

#### **FEATURES**

- Low profile package
- · Ideal for automated placement
- ± 3.5 %, very tight V<sub>BB</sub> tolerance
- Available in uni-directional
- 600 W peak pulse power capability with a 10/1000 µs waveform, repetitive rate (duty cycle): 0.01 %
- Excellent clamping capability
- Very fast response time
- Low incremental surge resistance
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

#### **TYPICAL APPLICATIONS**

Use in sensitive electronics protection against voltage transients induced by inductive load switching and lighting on ICs, MOSFETs, signal lines of sensor units for consumer, computer, industrial, and telecommunication.

#### **MECHANICAL DATA**

#### Case: DO-214AA (SMBJ)

Molding compound meets UL 94 V-0 flammability rating Base P/N-M3 - halogen-free, RoHS-compliant, and industrial grade

Terminals: matte tin plated leads, solderable per J-STD-002 and JESD 22-B102

M3 suffix meets JESD 201 class 2 whisker test

Polarity: for uni-directional types the band denotes cathode end

<b>MAXIMUM RATINGS</b> (T <sub>A</sub> = 25 °C unless otherwise noted)							
PARAMETER	SYMBOL	VALUE	UNIT				
Peak pulse power dissipation	with a 10/1000 µs waveform	P <sub>PPM</sub> <sup>(1)</sup>	600	W			
Peak pulse current	with a 10/1000 $\mu s$ waveform	I <sub>PPM</sub> <sup>(1)</sup>	See next table	А			
Power dissipation	$T_{M} = 50 \ ^{\circ}C$	P <sub>D</sub> <sup>(2)</sup>	5.0	- W			
	$T_A = 25 \ ^{\circ}C$	P <sub>D</sub> <sup>(3)</sup>	1.0				
Operating junction and storage temperature range		T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C			

#### Notes

<sup>(1)</sup> Non-repetitive current pulse, per fig. 3 and derated above  $T_A = 25$  °C per fig. 2

<sup>(2)</sup> Power dissipation mounted on infinite heatsink

<sup>(3)</sup> Power dissipation mounted on minimum recommended pad layout

ORDERING INFORMATION (Example)						
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE		
SMBJ5.0D-M3/H	0.096	н	750	7" diameter plastic tape and reel		
SMBJ5.0D-M3/I	0.096		3200	13" diameter plastic tape and reel		

#### PRODUCT SHEET

2/2

VMN-PT0458-1507

THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. THE PRODUCTS DESCRIBED HEREIN AND THIS DOCUMENT ARE SUBJECT TO SPECIFIC DISCLAI m/doc?91000 Downloaded From Oneyac.com



HALOGEN

FREE



#### DO-214AA (SMBJ-Bend)

PRIMARY CHARACTERISTICS				
V <sub>BR</sub> (uni-directional)	6.5 V to 228 V			
V <sub>WM</sub>	5.0 V to 188 V			
P <sub>PPM</sub>	600 W			
$P_D$ at $T_M = 50 \ ^\circ C$	5.0 W			
$P_D$ at $T_A = 25 \ ^\circ C$	1.0 W			
T <sub>J</sub> max.	150 °C			
Polarity	Uni-directional			
Package	DO-214AA (SMBJ)			

# Revision 8-May-15



单击下面可查看定价,库存,交付和生命周期等信息

>>Vishay(威世)

>>点击查看相关商品