

# 1SMB10CAT3G Series, SZ1SMB10CAT3G Series

## 600 Watt Peak Power Zener Transient Voltage Suppressors

### Bidirectional

The SMB series is designed to protect voltage sensitive components from high voltage, high energy transients. They have excellent clamping capability, high surge capability, low zener impedance and fast response time. The SMB series is supplied in ON Semiconductor's exclusive, cost-effective, highly reliable SURMETIC® package and is ideally suited for use in communication systems, automotive, numerical controls, process controls, medical equipment, business machines, power supplies and many other industrial/consumer applications.

### Features

- Working Peak Reverse Voltage Range – 10 V to 75 V
- Standard Zener Breakdown Voltage Range – 11.7 V to 91.7 V
- Peak Power – 600 Watts @ 1 ms
- ESD Rating of Class 3 (> 16 kV) per Human Body Model
- Maximum Clamp Voltage @ Peak Pulse Current
- Low Leakage < 5  $\mu$ A Above 10 V
- UL 497B for Isolated Loop Circuit Protection
- Response Time is Typically < 1 ns
- SZ Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable
- Pb-Free Packages are Available\*

### Mechanical Characteristics

**CASE:** Void-free, transfer-molded, thermosetting plastic

**FINISH:** All external surfaces are corrosion resistant and leads are readily solderable

**MAXIMUM CASE TEMPERATURE FOR SOLDERING PURPOSES:**

260°C for 10 Seconds

**LEADS:** Modified L-Bend providing more contact area to bond pads

**POLARITY:** Polarity band will not be indicated

**MOUNTING POSITION:** Any



**ON Semiconductor®**

<http://onsemi.com>

**PLASTIC SURFACE MOUNT  
ZENER OVERVOLTAGE  
TRANSIENT SUPPRESSORS  
10-78 V, 600 W PEAK POWER**



SMB  
CASE 403C  
PLASTIC



**MARKING DIAGRAM**



- A = Assembly Location
- Y = Year
- WW = Work Week
- xxC = Specific Device Code  
(See Table on Page 3)
- = Pb-Free Package

(Note: Microdot may be in either location)

### ORDERING INFORMATION

Device**	Package	Shipping†
1SMBxxCAT3G	SMB (Pb-Free)	2,500 / Tape & Reel
SZ1SMBxxCAT3G	SMB (Pb-Free)	2,500 / Tape & Reel

\*\*The "T3" suffix refers to a 13 inch reel.

†For information on tape and reel specifications