

LITTELFUSE TVS Diodes

RoHS Compliant This product is RoHS compliant.

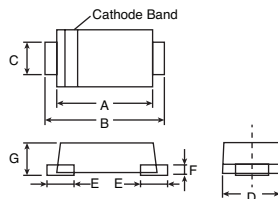


Transient Protection

SMA6L SERIES LOW PROFILE

Applications:

- Ultra-slim NB
- Hard Disk Drive
- Telecom Equipments
- Battery Chargers
- Industrial Equipments
- Switch Mode Power Supply



| Dimensions | Inches | | Millimeters | |
|------------|--------|-------|-------------|-------|
| | Min | Max | Min | Max |
| A | 0.156 | 0.181 | 3.950 | 4.600 |
| B | 0.189 | 0.220 | 4.800 | 5.600 |
| C | 0.049 | 0.069 | 1.250 | 1.750 |
| D | 0.088 | 0.116 | 2.250 | 2.950 |
| E | 0.030 | 0.059 | 0.750 | 1.500 |
| F | 0.005 | 0.010 | 0.125 | 0.250 |
| G | 0.035 | 0.043 | 0.900 | 1.100 |

For quantities greater than listed, call for quote.

Specifications:

- Operating temperature range: -65°C to +150°C

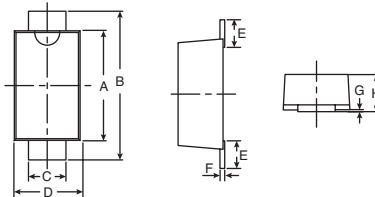
NEW!
TECHNOLOGY

| MOUSER STOCK NO. | Littelfuse Part No. | Reverse Standoff (VR) | Breakdown Voltage VBR (Volts) @ IT | | Test Current IT (mA) | Max. Clamping Volt VC @ IPP | Max. Peak Pulse Current IPP (A) | Max. Reverse Leakage IR @ VR (µA) | Price Each | | | |
|------------------|---------------------|-----------------------|------------------------------------|------|----------------------|-----------------------------|---------------------------------|-----------------------------------|------------|-----|-----|------|
| | | | Min. | Max. | | | | | 1 | 10 | 100 | 250 |
| 576-SMA6L9.0A | SMA6L9.0A | 9 | 10 | 11.1 | 1 | 15.4 | 39.0 | 10 | .41 | .33 | .31 | .275 |
| 576-SMA6L10A | SMA6L10A | 10 | 11.1 | 12.3 | 1 | 17.0 | 35.3 | 5 | .41 | .33 | .31 | .275 |
| 576-SMA6L11A | SMA6L11A | 11 | 12.2 | 13.5 | 1 | 18.2 | 33.0 | 1 | .41 | .33 | .31 | .275 |
| 576-SMA6L12A | SMA6L12A | 12 | 13.3 | 14.7 | 1 | 19.9 | 30.2 | 1 | .41 | .33 | .31 | .275 |
| 576-SMA6L13A | SMA6L13A | 13 | 14.4 | 15.9 | 1 | 21.5 | 28.0 | 1 | .41 | .33 | .31 | .275 |
| 576-SMA6L14A | SMA6L14A | 14 | 15.6 | 17.2 | 1 | 23.2 | 25.9 | 1 | .41 | .33 | .31 | .275 |
| 576-SMA6L15A | SMA6L15A | 15 | 16.7 | 18.5 | 1 | 24.4 | 24.6 | 1 | .41 | .33 | .31 | .275 |

SMF SERIES LOW PROFILE

Applications:

- Hard disk drives
- Business machines
- Portable devices
- Cell phones



| Dimensions | Inches | | Millimeters | |
|------------|--------|--------|-------------|------|
| | Min | Max | Min | Max |
| A | 0.0984 | 0.1142 | 2.50 | 2.90 |
| B | 0.1339 | 0.1535 | 3.40 | 3.90 |
| C | 0.0275 | 0.0472 | 0.70 | 1.20 |
| D | 0.0591 | 0.0787 | 1.50 | 2.00 |
| E | 0.0138 | 0.0354 | 0.35 | 0.90 |
| F | 0.0020 | 0.0102 | 0.05 | 0.26 |
| G | 0.0000 | 0.0039 | 0.00 | 0.10 |
| H | 0.0374 | 0.0433 | 0.95 | 1.10 |

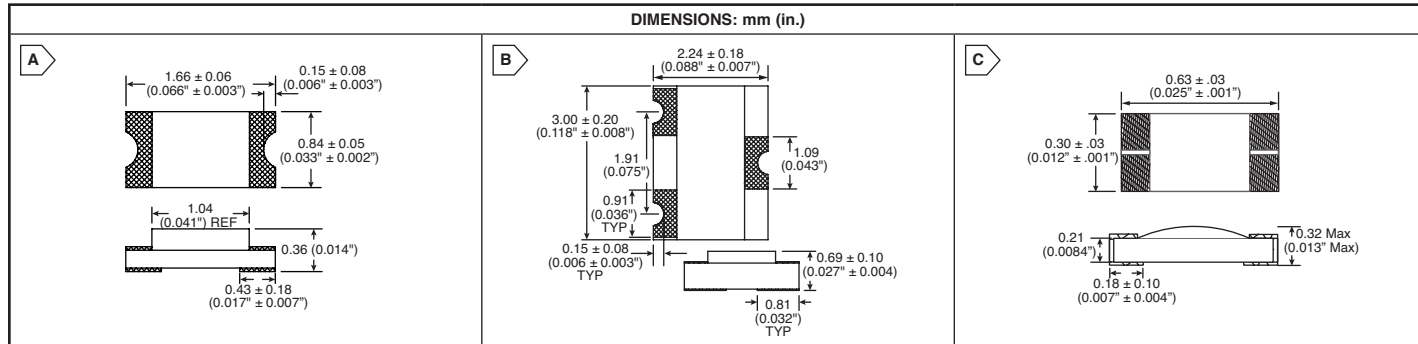
For quantities greater than listed, call for quote.

Specifications:

- Operating temp. range: -55°C to +150°C

NEW
PRODUCT

| MOUSER STOCK NO. | Littelfuse Part No. | Reverse Standoff (VR) | Breakdown Voltage VBR (Volts) @ IT | | Test Current IT (mA) | Max. Clamping Volt VC @ IPP | Max. Peak Pulse Current IPP (A) | Max. Reverse Leakage IR @ VR (µA) | Price Each | | | |
|------------------|---------------------|-----------------------|------------------------------------|------|----------------------|-----------------------------|---------------------------------|-----------------------------------|------------|-----|-----|------|
| | | | Min. | Max. | | | | | 1 | 10 | 100 | 250 |
| 576-SMF5.0A | SMF5.0A | 5.0 | 6.4 | 7 | 10 | 9.2 | 21.7 | 400 | .26 | .23 | .20 | .175 |
| 576-SMF6.0A | SMF6.0A | 6.0 | 6.67 | 7.37 | 10 | 10.3 | 19.4 | 400 | .26 | .23 | .20 | .175 |
| 576-SMF6.5A | SMF6.5A | 6.5 | 7.22 | 7.98 | 10 | 11.2 | 17.9 | 250 | .26 | .23 | .20 | .175 |
| 576-SMF7.0A | SMF7.0A | 7.0 | 7.78 | 8.6 | 10 | 12 | 16.7 | 100 | .26 | .23 | .20 | .175 |
| 576-SMF7.5A | SMF7.5A | 7.5 | 8.33 | 9.21 | 1 | 12.9 | 15.5 | 50 | .26 | .23 | .20 | .175 |
| 576-SMF8.0A | SMF8.0A | 8.0 | 8.89 | 9.83 | 1 | 13.6 | 14.7 | 25 | .26 | .23 | .20 | .175 |
| 576-SMF8.5A | SMF8.5A | 8.5 | 9.44 | 10.4 | 1 | 14.4 | 13.9 | 10 | .26 | .23 | .20 | .175 |
| 576-SMF9.0A | SMF9.0A | 9.0 | 10.0 | 11.1 | 1 | 15.4 | 13 | 5 | .26 | .23 | .20 | .175 |
| 576-SMF10A | SMF10A | 10 | 11.1 | 12.3 | 1 | 17 | 11.8 | 2.5 | .26 | .23 | .20 | .175 |
| 576-SMF11A | SMF11A | 11 | 12.2 | 13.5 | 1 | 18.2 | 11 | 2.5 | .26 | .23 | .20 | .175 |
| 576-SMF12A | SMF12A | 12 | 13.3 | 14.7 | 1 | 19.9 | 10.1 | 2.5 | .26 | .23 | .20 | .175 |



PGB1 AND PGB2 SERIES PULSEGUARD SUPPRESSOR

Features:

- Ultra-low capacitance
- Fast response time
- Low leakage current
- Withstands multiple EDS strikes

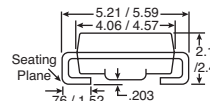
NEW
PRODUCT

* Halogen Free

For quantities greater than listed, call for quote.

| MOUSER STOCK NO. | Littelfuse Part No. | Fig. | Package/Case | ESD Capability | Clamping Voltage | Reverse Standoff Voltage (Typ) | Lines Protected | Price Each | | |
|----------------------|---------------------|------|--------------|----------------|------------------|--------------------------------|-----------------|------------|-----|-----|
| | | | | | | | | 1 | 10 | 100 |
| PGB1 Series | | | | | | | | | | |
| 576-PGB1010603MR | PGB1010603MR | A | 0603 | 8kV-15kV | 150V | 24VDC | 1 | .31 | .30 | .28 |
| 576-PGB1010603NR | PGB1010603NR | A | 0603 | 8kV-15kV | 150V | 24VDC | 1 | .30 | .29 | .27 |
| * 576-PGB1010603MRHF | PGB1010603MRHF | A | 0603 | 8kV-15kV | 150V | 24VDC | 1 | .31 | .30 | .28 |
| 576-PGB102ST23WR | PGB102ST23WR | B | SOT23 | 8kV-15kV | 150V | 24VDC | 2 | .53 | .51 | .47 |
| * 576-PGB102ST23WRHF | PGB102ST23WRHF | B | SOT23 | 8kV-15kV | 150V | 24VDC | 2 | .53 | .51 | .47 |
| PGB2 Series | | | | | | | | | | |
| 576-PGB2010201KR | PGB2010201KR | C | 0201 | 8kV-15kV | 55V | 12VDC | 1 | .31 | .30 | .28 |

1KSMBJ SERIES



DIMENSIONS: mm

For quantities greater than listed, call for quote.

| MOUSER STOCK NO. | Littelfuse Part No. | Device Code | Reverse Standoff (VR) | Breakdown Voltage VBR (Volts) @ IT | | | Max. Reverse Leakage IR @ VR | Max. Clamping Voltage VC @ IPP | Max. Peak Pulse Current | Price Each | | | |
|------------------|---------------------|-------------|-----------------------|------------------------------------|------|------|------------------------------|--------------------------------|-------------------------|------------|------|------|------|
| | | | | Min. | Max. | (mA) | | | | 1 | 25 | 100 | 250 |
| 576-1KSMBJ15 | 1KSMBJ15 | N10Q | 12.1 | 13.5 | 16.5 | 1 | 5 | 22 | 45 | .71 | .59 | .51 | .44 |
| 576-1KSMBJ30 | 1KSMBJ30 | O10E | 24.3 | 27 | 33 | 1 | 5 | 43.5 | 22.9 | .58 | .526 | .451 | .385 |