



# Silicon Carbide (SiC) Schottky Diodes

in D<sup>2</sup>PAK 2L (TO-263AB 2L), TO-220AC 2L, and TO-247AD Packages

Advanced merged PIN Schottky (MPS) structure

Excellent surge capability and low voltage drop at high current peaks

Low positive forward voltage temperature coefficient for high efficiency and easy paralleling

Low junction capacitance for low switching losses in active devices

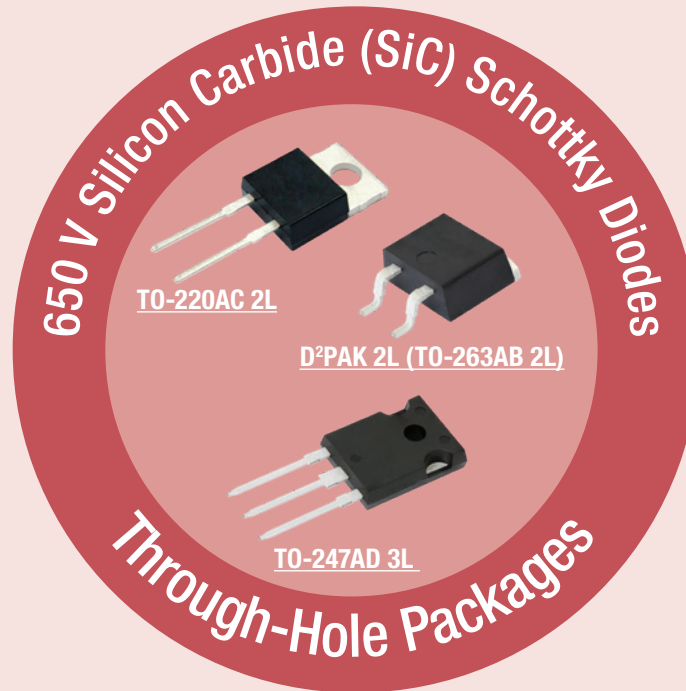
Low and stable leakage with temperature



Current ratings from 4 A to 40 A



Breakdown voltage of 650 V



## APPLICATIONS

PFC and high frequency rectification in high voltage power supplies and LLC converters for servers, telecom equipment, UPS, and solar inverters



SERVERS



UPS



TELECOM



SOLAR INVERTERS

## Vishay SiC Portfolio

| Part Number                       | I <sub>F(AV)</sub> (A) | I <sub>FSM</sub> (A) | V <sub>RRM</sub> (V) | V <sub>F</sub> at I <sub>F</sub> (V) <sup>1</sup> | T <sub>J</sub> Max. (°C) | Q <sub>C</sub> (nC) | Circuit Configuration | Package (JEDEC®) Code               | Part Number                     | I <sub>F(AV)</sub> (A) | I <sub>FSM</sub> (A) | V <sub>RRM</sub> (V) | V <sub>F</sub> at I <sub>F</sub> (V) <sup>1</sup> | T <sub>J</sub> Max. (°C) | Q <sub>C</sub> (nC) | Circuit Configuration | Package (JEDEC®) Code |  |
|-----------------------------------|------------------------|----------------------|----------------------|---|--------------------------|---------------------|-----------------------|-------------------------------------|---------------------------------|------------------------|----------------------|----------------------|---|--------------------------|---------------------|-----------------------|-----------------------|--|
| <a href="#">VS-3C04ET07S2L-M3</a> | 4                      | 29                   | 650                  | 1.3   | 175                      | 12                  | Single                | D <sup>2</sup> PAK 2L (TO-263AB 2L) | <a href="#">VS-3C08ET07T-M3</a> | 8                      | 54                   | 650                  | 1.3   | 175                      | 22                  | Single                | TO-220AC 2L           |  |
| <a href="#">VS-3C06ET07S2L-M3</a> | 6                      | 42                   | 650                  |   | 175                      | 17                  | Single                | D <sup>2</sup> PAK 2L (TO-263AB 2L) | <a href="#">VS-3C10ET07T-M3</a> | 10                     | 60                   | 650                  |   | 175                      | 29                  | Single                | TO-220AC 2L           |  |
| <a href="#">VS-3C08ET07S2L-M3</a> | 8                      | 54                   | 650                  |   | 175                      | 22                  | Single                | D <sup>2</sup> PAK 2L (TO-263AB 2L) | <a href="#">VS-3C12ET07T-M3</a> | 12                     | 83                   | 650                  |   | 175                      | 34                  | Single                | TO-220AC 2L           |  |
| <a href="#">VS-3C10ET07S2L-M3</a> | 10                     | 60                   | 650                  |   | 175                      | 29                  | Single                | D <sup>2</sup> PAK 2L (TO-263AB 2L) | <a href="#">VS-3C16ET07T-M3</a> | 16                     | 104                  | 650                  |   | 175                      | 44                  | Single                | TO-220AC 2L           |  |
| <a href="#">VS-3C12ET07S2L-M3</a> | 12                     | 83                   | 650                  |   | 175                      | 34                  | Single                | D <sup>2</sup> PAK 2L (TO-263AB 2L) | <a href="#">VS-3C20ET07T-M3</a> | 20                     | 110                  | 650                  |   | 175                      | 53                  | Single                | TO-220AC 2L           |  |
| <a href="#">VS-3C16ET07S2L-M3</a> | 16                     | 104                  | 650                  |   | 175                      | 44                  | Single                | D <sup>2</sup> PAK 2L (TO-263AB 2L) | <a href="#">VS-3C16CP07L-M3</a> | 2 x 8                  | 54                   | 650                  |   | 175                      | 22                  | Common cathode        | TO-247AD 3L           |  |
| <a href="#">VS-3C20ET07S2L-M3</a> | 20                     | 110                  | 650                  |   | 175                      | 53                  | Single                | D <sup>2</sup> PAK2L (TO-263AB 2L)  | <a href="#">VS-3C20CP07L-M3</a> | 2 x 10                 | 60                   | 650                  |   | 175                      | 29                  | Common cathode        | TO-247AD 3L           |  |
| <a href="#">VS-3C04ET07T-M3</a>   | 4                      | 29                   | 650                  |   | 175                      | 12                  | Single                | TO-220AC 2L                         | <a href="#">VS-3C40CP07L-M3</a> | 2 x 20                 | 110                  | 650                  |   | 175                      | 53                  | Common cathode        | TO-247AD 3L           |  |
| <a href="#">VS-3C06ET07T-M3</a>   | 6                      | 42                   | 650                  |   | 175                      | 17                  | Single                | TO-220AC 2L                         |                                 |                        |                      |                      |   |                          |                     |                       |                       |  |

Note: <sup>(1)</sup> V<sub>F</sub> at I<sub>F</sub> at 25 °C

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