

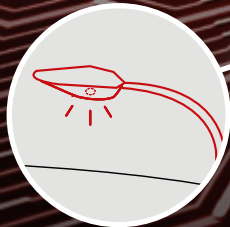
# 3G

low forward voltage

low leakage current

smaller package outline

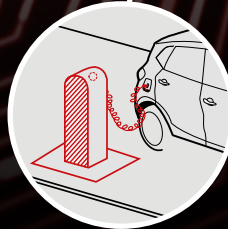
cost reduction



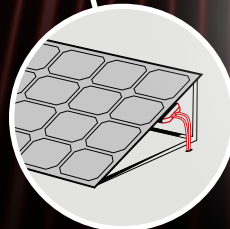
Lighting



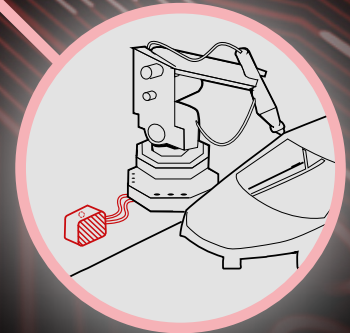
Consumer



Mobility



Energy



Industrial

**3G Schottky**

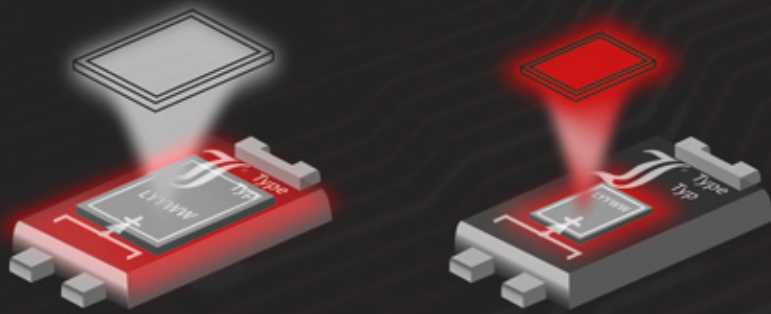
## Redefined Solution

**3rd Generation Technology by Diotec**

Power Saving

Better than Trench MOS

Best State-of-the-Art Performance



Standard Technology

3G Schottky Technology

**Miniaturizing Chip Design**  
Smaller, Stronger, Smarter...

**Best State-of-the-Art Performance**

**Typical Usage**

Output Rectifier  
Power Supplies  
DC/DC Converter  
Battery Charger  
Polarity Protection

Free-Wheeling Diodes  
LED Driver  
OR-ing Diodes

**Features/Benefits**

Low Forward Voltage  
Low Reverse Current  
High Power Dissipation  
High ESD Robustness  
Energy Savings

**3G Schottky Diodes for Industrial Applications**

| Part Number  | V <sub>RRM</sub> [V] | I <sub>FAV</sub> [A] | V <sub>F</sub> [V] | @ I <sub>F</sub> /T <sub>j</sub> | V <sub>F</sub> [V] | @ I <sub>F</sub> /T <sub>j</sub> | I <sub>R</sub> [μA] | @ V <sub>R</sub> /T <sub>j</sub> | C <sub>j</sub> [pF] | Package                     |
|--------------|----------------------|----------------------|--------------------|----------------------------------|--------------------|----------------------------------|---------------------|----------------------------------|---------------------|-----------------------------|
| SGL34-40*    | 40                   | 0.5                  | 0.40               | 0.5A/25°C                        | 0.35               | 0.5A/100°C                       | 10                  | 40V/25°C                         | 55                  | DO-213AA/MiniMelf           |
| SGL1-40*     | 40                   | 1                    | 0.45               | 1A/25°C                          | 0.40               | 1A/100°C                         | 10                  | 40V/25°C                         | 55                  | DO-213AA/MiniMelf           |
| SGL15-40*    | 40                   | 1.5                  | 0.50               | 1.5A/25°C                        | 0.45               | 1.5A/100°C                       | 10                  | 40V/25°C                         | 55                  | DO-213AA/MiniMelf           |
| SMS140*      | 40                   | 1                    | 0.38               | 1A/25°C                          | 0.32               | 1A/100°C                         | 40                  | 40V/25°C                         | 120                 | DO-213AB/Melf               |
| SMS240*      | 40                   | 2                    | 0.42               | 2A/25°C                          | 0.37               | 2A/100°C                         | 40                  | 40V/25°C                         | 120                 | DO-213AB/Melf               |
| SMS340*      | 40                   | 3                    | 0.45               | 3A/25°C                          | 0.40               | 3A/100°C                         | 40                  | 40V/25°C                         | 120                 | DO-213AB/Melf               |
| SL32SMA-3G   | 20                   | 3                    | 0.43               | 3A/25°C                          | 0.37               | 3A/100°C                         | 15                  | 20V/25°C                         | 90                  | DO-214AC/SMA                |
| SL34SMA-3G   | 40                   | 3                    | 0.43               | 3A/25°C                          | 0.37               | 3A/100°C                         | 60                  | 40V/25°C                         | 90                  | DO-214AC/SMA                |
| SK34SMA-3G   | 40                   | 3                    | 0.48               | 3A/25°C                          | 0.43               | 3A/100°C                         | 30                  | 40V/25°C                         | 90                  | DO-214AC/SMA                |
| SL52-3G      | 20                   | 5                    | 0.42               | 5A/25°C                          | 0.37               | 5A/100°C                         | 20                  | 20V/25°C                         | 90                  | DO-214AA/SMB                |
| SL54-3G      | 40                   | 5                    | 0.42               | 5A/25°C                          | 0.37               | 5A/100°C                         | 150                 | 40V/25°C                         | 320                 | DO-214AA/SMB                |
| SK54-3G      | 40                   | 5                    | 0.47               | 5A/25°C                          | 0.42               | 5A/100°C                         | 20                  | 40V/25°C                         | 340                 | DO-214AA/SMB                |
| SL82-3G      | 20                   | 8                    | 0.47               | 5A/25°C                          | 0.39               | 5A/100°C                         | 20                  | 20V/25°C                         | 320                 | DO-214AB/SMC                |
| SL84-3G      | 40                   | 8                    | 0.47               | 8A/25°C                          | 0.39               | 8A/100°C                         | 150                 | 40V/25°C                         | 320                 | DO-214AB/SMC                |
| SK84-3G      | 40                   | 8                    | 0.51               | 8A/25°C                          | 0.44               | 8A/100°C                         | 30                  | 40V/25°C                         | 340                 | DO-214AB/SMC                |
| PPS1045-3G   | 45                   | 10                   | 0.48               | 10A/25°C                         | 0.42               | 10A/100°C                        | 70                  | 45V/25°C                         | 510                 | TO-277B/PowerSMD            |
| SK1040D2-3G  | 40                   | 10                   | 0.48               | 10A/25°C                         | 0.42               | 10A/100°C                        | 60                  | 40V/25°C                         | 510                 | TO-263AB/D <sup>2</sup> PAK |
| SK1045D2-3G  | 45                   | 10                   | 0.48               | 10A/25°C                         | 0.42               | 10A/100°C                        | 70                  | 45V/25°C                         | 510                 | TO-263AB/D <sup>2</sup> PAK |
| SBT1040-3G   | 40                   | 10                   | 0.48               | 10A/25°C                         | 0.42               | 10A/100°C                        | 60                  | 40V/25°C                         | 510                 | TO-220AC                    |
| SBT1045-3G   | 45                   | 10                   | 0.48               | 10A/25°C                         | 0.42               | 10A/100°C                        | 70                  | 45V/25°C                         | 510                 | TO-220AC                    |
| PPS1545-3G   | 45                   | 15                   | 0.52               | 15A/25°C                         | 0.43               | 15A/100°C                        | 80                  | 45V/25°C                         | 720                 | TO-277B/PowerSMD            |
| SK1540YD2-3G | 40                   | 15                   | 0.52               | 15A/25°C                         | 0.43               | 15A/100°C                        | 70                  | 40V/25°C                         | 720                 | TO-263AB/D <sup>2</sup> PAK |
| SK1545YD2-3G | 45                   | 15                   | 0.52               | 15A/25°C                         | 0.43               | 15A/100°C                        | 80                  | 45V/25°C                         | 720                 | TO-263AB/D <sup>2</sup> PAK |
| SK1840D2-3G  | 40                   | 18                   | 0.53               | 18A/25°C                         | 0.44               | 18A/100°C                        | 70                  | 40V/25°C                         | 720                 | TO-263AB/D <sup>2</sup> PAK |
| SK1845D2-3G  | 45                   | 18                   | 0.53               | 18A/25°C                         | 0.44               | 18A/100°C                        | 80                  | 45V/25°C                         | 720                 | TO-263AB/D <sup>2</sup> PAK |
| SBT1840-3G   | 40                   | 18                   | 0.53               | 18A/25°C                         | 0.44               | 18A/100°C                        | 70                  | 40V/25°C                         | 720                 | TO-220AC                    |
| SBT1845-3G   | 45                   | 18                   | 0.53               | 18A/25°C                         | 0.44               | 18A/100°C                        | 80                  | 45V/25°C                         | 720                 | TO-220AC                    |
| SK2040YD2-3G | 40                   | 20                   | 0.52               | 20A/25°C                         | 0.43               | 20A/100°C                        | 70                  | 40V/25°C                         | 720                 | TO-263AB/D <sup>2</sup> PAK |
| SK2045YD2-3G | 45                   | 20                   | 0.52               | 20A/25°C                         | 0.43               | 20A/100°C                        | 80                  | 45V/25°C                         | 720                 | TO-263AB/D <sup>2</sup> PAK |
| SK2040CD2-3G | 40                   | 2x10                 | 0.48               | 10A/25°C                         | 0.42               | 10A/100°C                        | 70                  | 45V/25°C                         | 510                 | TO-263AB/D <sup>2</sup> PAK |
| SK2045CD2-3G | 45                   | 2x10                 | 0.48               | 10A/25°C                         | 0.42               | 10A/100°C                        | 70                  | 45V/25°C                         | 510                 | TO-263AB/D <sup>2</sup> PAK |
| SK2540YD2-3G | 40                   | 25                   | 0.54               | 25A/25°C                         | 0.49               | 25A/100°C                        | 40                  | 40V/25°C                         | 800                 | TO-263AB/D <sup>2</sup> PAK |
| SK2545YD2-3G | 45                   | 25                   | 0.54               | 25A/25°C                         | 0.49               | 25A/100°C                        | 60                  | 45V/25°C                         | 800                 | TO-263AB/D <sup>2</sup> PAK |
| SK3040CD2-3G | 40                   | 2x15                 | 0.52               | 15A/25°C                         | 0.43               | 15A/100°C                        | 80                  | 45V/25°C                         | 720                 | TO-263AB/D <sup>2</sup> PAK |
| SK3045CD2-3G | 45                   | 2x15                 | 0.52               | 15A/25°C                         | 0.43               | 15A/100°C                        | 80                  | 45V/25°C                         | 720                 | TO-263AB/D <sup>2</sup> PAK |
| SK4045CD2-3G | 45                   | 2x20                 | 0.52               | 15A/25°C                         | 0.43               | 15A/100°C                        | 80                  | 45V/25°C                         | 720                 | TO-263AB/D <sup>2</sup> PAK |
| SB1240-3G    | 40                   | 12                   | 0.49               | 12A/25°C                         | 0.44               | 12A/100°C                        | 60                  | 40V/25°C                         | 510                 | -DO-201                     |
| SB1540-3G    | 40                   | 18                   | 0.53               | 18A/25°C                         | 0.44               | 15A/100°C                        | 60                  | 40V/25°C                         | 720                 | D5.4x7.5                    |
| 155Q045-3G   | 45                   | 15                   | 0.52               | 15A/25°C                         | 0.43               | 15A/100°C                        | 80                  | 45V/25°C                         | 720                 | D5.4x7.5                    |
| SBX2040-3G   | 40                   | 20                   | 0.52               | 15A/25°C                         | 0.43               | 20A/100°C                        | 70                  | 40V/25°C                         | 720                 | D5.4x7.5 - Low Rth          |
| 205Q045-3G   | 45                   | 20                   | 0.52               | 15A/25°C                         | 0.43               | 20A/100°C                        | 80                  | 45V/25°C                         | 720                 | D5.4x7.5                    |
| SBX2540-3G   | 40                   | 25                   | 0.54               | 25A/25°C                         | 0.49               | 25A/100°C                        | 70                  | 40V/25°C                         | 720                 | D5.4x7.5 - Low Rth          |
| SBX3040-3G   | 40                   | 30                   | 0.54               | 30A/25°C                         | 0.49               | 30A/100°C                        | 50                  | 40V/25°C                         | 720                 | D5.4x7.5 - Low Rth          |

\*coming 2Q 2019