



# GA0603B1040

## DFN 1.6X0.8-2L Plastic-Encapsulate Schottky Barrier Diode

### FEATURES

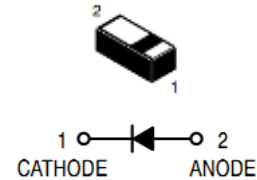
- Low forward voltage drop
- Small power mold type
- Low IR
- Small current rectification

### APPLICATIONS

- Low voltage rectification
- High efficiency Buck and Boost DC-to-DC conversion
- Switch mode power supply
- LED or Keypad backlight for mobile application
- Low power consumption applications
- Ultra high-speed switching
- Reverse Voltage and Current Protection
- Clamping & Protection

### MARKETS

- Mobile Handsets
- MP3 Players
- Digital Camera and Camcorders
- Notebook PCs & PDAs
- GPS



### MAXIMUM RATINGS (Ta=25°C unless otherwise noted )

| Symbol              | Parameter   | Value    | Unit |
|---------------------|---|----------|------|
| V <sub>RRM</sub>    | Peak Repetitive Reverse Voltage                     | 40       | V    |
| V <sub>RWM</sub>    | Working Peak Reverse Voltage                        |          |      |
| V <sub>R(RMS)</sub> | RMS Reverse Voltage                                 | 28       | V    |
| I <sub>O</sub>      | Average Rectified Output Current                    | 1        | A    |
| I <sub>FSM</sub>    | Non-repetitive Peak Forward Surge Current @ t≤8.3ms | 30       | A    |
| P <sub>D</sub>      | Power Dissipation                                   | 150      | mW   |
| R <sub>θJA</sub>    | Thermal Resistance from Junction to Ambient         | 833      | °C/W |
| T <sub>j</sub>      | Junction Temperature                                | 125      | °C   |
| T <sub>stg</sub>    | Storage Temperature                                 | -55~+150 | °C   |

### ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

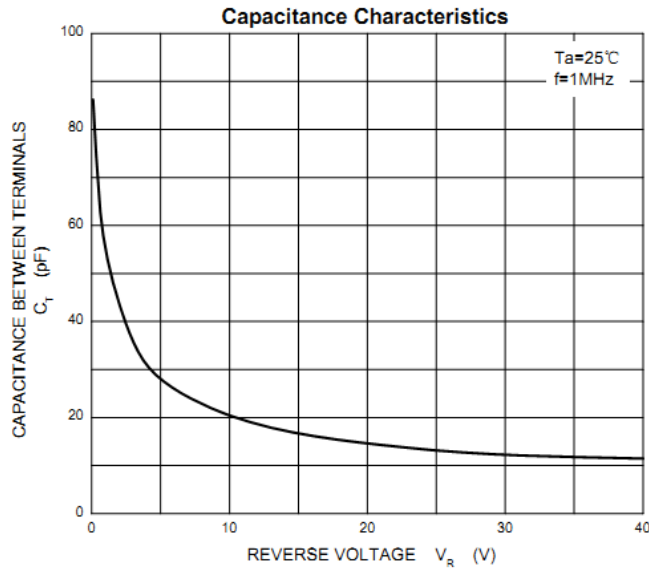
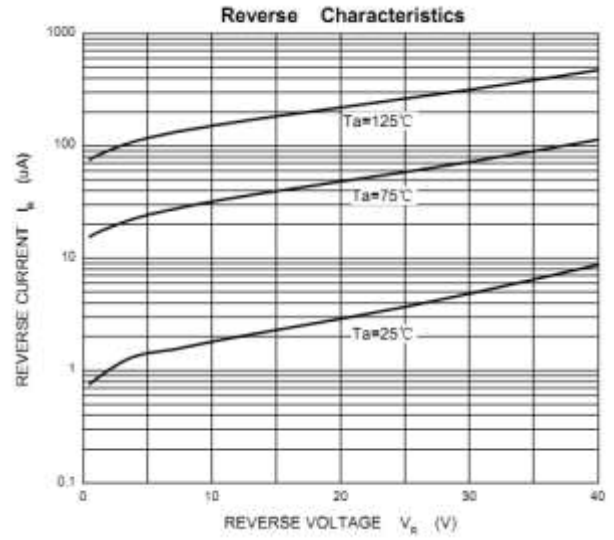
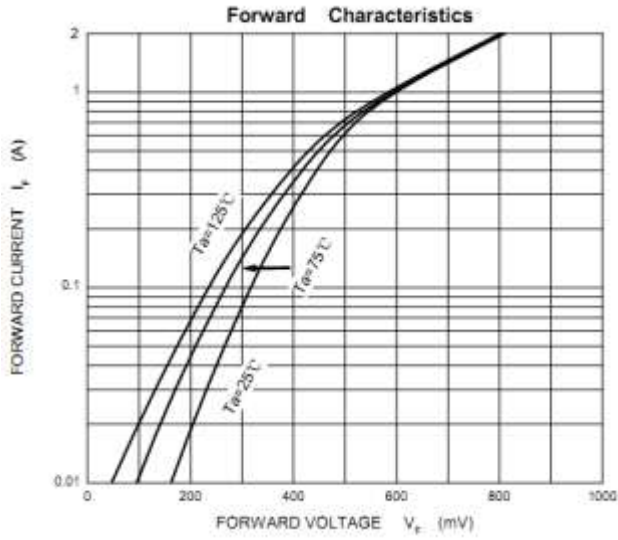
| Parameter             | Symbol            | Test conditions  | Min | Typ | Max  | Unit |
|-----------------------|-------------------|--|-----|-----|------|------|
| Reverse voltage       | V <sub>(BR)</sub> | I <sub>R</sub> =10μA   | 40  |     |      | V    |
| Reverse current       | I <sub>R</sub>    | V <sub>R</sub> =40V  |     |     | 50   | μA   |
| Forward voltage       | V <sub>F</sub>    | I <sub>F</sub> =1.0A   |     |     | 0.53 | V    |
| Diode capacitance     | C <sub>d</sub>    | V <sub>R</sub> =1V; f=1MHz; T <sub>j</sub> =25°C   |     | 50  |      | pF   |
|                       |                   | V <sub>R</sub> =10V; f=1MHz; T <sub>j</sub> =25°C  |     | 20  |      | pF   |
| Reverse recovery time | t <sub>rr</sub>   | I <sub>F</sub> =I <sub>R</sub> =10mA; R <sub>L</sub> =100Ω;<br>I <sub>R</sub> (meas)=1mA |     | 15  |      | nS   |



# GA0603B1040

## DFN 1.6X0.8-2L Plastic-Encapsulate Schottky Barrier Diode

### Typical Characteristics

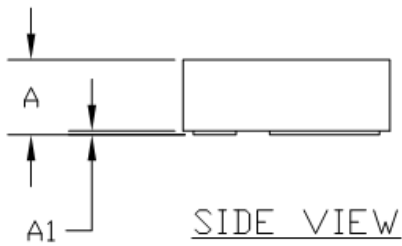
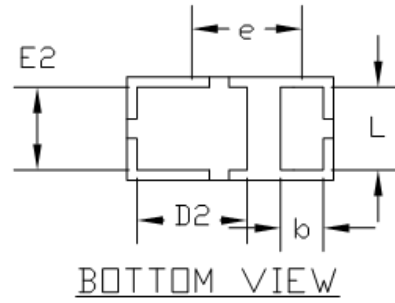
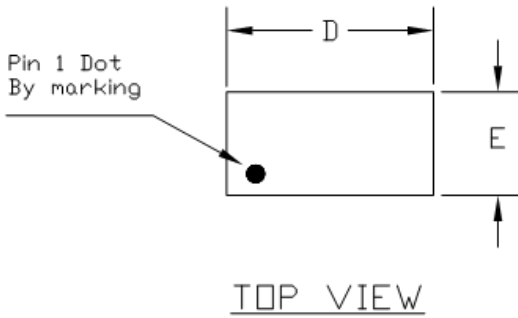




# GA0603B1040

## DFN 1.6X0.8-2L Plastic-Encapsulate Schottky Barrier Diode

### DFN 1.6X0.8-2L Package Outline Dimensions



| PKG. REF. | COMMON DIMENSIONS(MM) |      |      |
|-----------|-----------------------|------|------|
|           | MIN.                  | NDM. | MAX. |
| A         | 0.50                  | 0.55 | 0.60 |
| A1        | 0.00                  | -    | 0.05 |
| A3        | 0.15 REF.             |      |      |
| D         | 1.55                  | 1.60 | 1.65 |
| E         | 0.75                  | 0.80 | 0.85 |
| D2        | 0.75                  | 0.85 | 0.95 |
| E2        | 0.54                  | 0.64 | 0.74 |
| L         | 0.54                  | 0.64 | 0.74 |
| b         | 0.28                  | 0.33 | 0.41 |
| e         | 0.85 BSC              |      |      |

Lead finish: NiPdAu

### DFN 1.6X0.8-2L Suggested Pad Layout

