

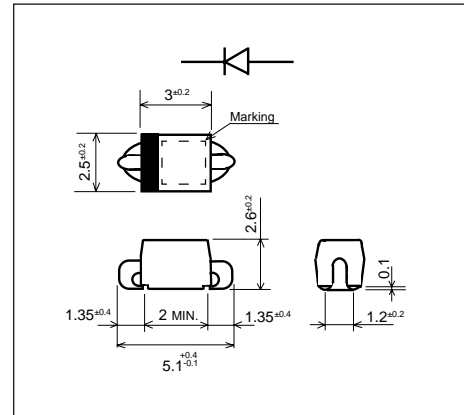
## Schottky-Barrier Diode(SBD) Single

| Device Type                | Features                             | Page | VRRM    | IF       | Package                            |
|----------------------------|--------------------------------------|------|---------|----------|------------------------------------|
| <a href="#">CB803-03</a>   | SCHOTTKY BARRIER DIODE<br>(30V/2.0A) | 3    | 30V max | 2.0A     | Lead-3                             |
| <a href="#">ERA81-004</a>  | SCHOTTKY BARRIER DIODE<br>(40V/1A)   | 3    | 40V max | 1.0A max | Lead-2                             |
| <a href="#">ERA82-004</a>  | SCHOTTKY BARRIER DIODE<br>(40V/0.6A) | 3    | 40V max | 0.6A max | Lead-1                             |
| <a href="#">ERA83-004</a>  | SCHOTTKY BARRIER DIODE<br>(40V/1A)   | 3    | 40V max | 1.0A max | Lead-1                             |
| <a href="#">ERA83-006</a>  | SCHOTTKY BARRIER DIODE<br>(60V/1A)   | 3    | 60V max | 1.0A max | Lead-1                             |
| <a href="#">ERA84-009</a>  | SCHOTTKY BARRIER DIODE<br>(90V/1A)   | 3    | 90V max | 1.0A max | Lead-2                             |
| <a href="#">ERA85-009</a>  | SCHOTTKY BARRIER DIODE<br>(90V/1A)   | 3    | 90V max | 1.0A max | Lead-1                             |
| <a href="#">ERB81-004</a>  | SCHOTTKY BARRIER DIODE<br>(40V/2.0A) | 3    | 40V max | 2.0A max | Lead-4                             |
| <a href="#">ERB83-004</a>  | SCHOTTKY BARRIER DIODE<br>(40V/2.0A) | 3    | 40V max | 2.0A max | Lead-3                             |
| <a href="#">ERB83-006</a>  | SCHOTTKY BARRIER DIODE<br>(60V/2A)   | 3    | 60V max | 2.0A max | Lead-3                             |
| <a href="#">ERB84-009</a>  | SCHOTTKY BARRIER DIODE<br>(90V/2A)   | 3    | 90V max | 2.0A max | Lead-4                             |
| <a href="#">ERC62-004</a>  | SCHOTTKY BARRIER DIODE<br>(45V/10A)  | 3    | 45V max | 10A max  | TO-220AB(FE,JEDEC)/<br>SC-46(EIAJ) |
| <a href="#">ERC80-004</a>  | SCHOTTKY BARRIER DIODE<br>(40V/5A)   | 3    | 40V max | 5.0A max | TO-220AB(FE,JEDEC)/<br>SC-46(EIAJ) |
| <a href="#">ERC81-004</a>  | SCHOTTKY BARRIER DIODE<br>(40V/3.0A) | 3    | 40V max | 3.0A max | Lead-7                             |
| <a href="#">ERC81-006</a>  | SCHOTTKY BARRIER DIODE<br>(60V/3A)   | 3    | 60V max | 3.0A max | Lead-7                             |
| <a href="#">ERC81S-004</a> | SCHOTTKY BARRIER DIODE               | 3    | 40V max | 5.0A max | Lead-7                             |
| <a href="#">ERC84-009</a>  | SCHOTTKY BARRIER DIODE<br>(90V/3A)   | 3    | 90V max | 3.0A max | Lead-7                             |

|                            |                                      |   |         |          |                                |
|----------------------------|--------------------------------------|---|---------|----------|--------------------------------|
| <a href="#">ERD80-004</a>  | SCHOTTKY BARRIER DIODE<br>(40V/15A)  | 3 | 40V max | 15A max  | TO-3P(FE)/SC-65(EIAJ)          |
| <a href="#">ERD81-004</a>  | SCHOTTKY BARRIER DIODE<br>(40V/15A)  | 2 | 40V max | 15A max  | Power M5R                      |
| <a href="#">ERE81-004</a>  | SCHOTTKY BARRIER DIODE<br>(40V/30A)  | 2 | 40V max | 30A max  | Power M6R                      |
| <a href="#">ERG81-004</a>  | SCHOTTKY BARRIER DIODE<br>(40V/60A)  | 2 | 40V max | 60A max  | Power M8R                      |
| <a href="#">ERG81A-004</a> | SCHOTTKY BARRIER DIODE<br>(40V/60A)  | 2 | 40V max | 60A max  | Power M8R                      |
| <a href="#">FD807-03</a>   | SCHOTTKY BARRIER DIODE               | 3 | 30V max | 3.0A max | Lead-7                         |
| <a href="#">KS826S04</a>   | SCHOTTKY BARRIER DIODE<br>(40V/5A)   | 3 | 40V max | 5.0A max | K-pack(S)                      |
| <a href="#">SC802-04</a>   | SCHOTTKY BARRIER DIODE<br>(40V/1A)   | 3 | 40V max | 1.0A max | SC                             |
| <a href="#">SC802-06</a>   | SCHOTTKY BARRIER DIODE               | 3 | 60V max | 1A max   | SC                             |
| <a href="#">SC802-09</a>   | SCHOTTKY BARRIER DIODE               | 3 | 90V max | 1A max   | SC                             |
| <a href="#">SD833-03</a>   | SCHOTTKY BARRIER DIODE<br>(30V/3.0A) | 3 | 30V max | 3.0A max | SD                             |
| <a href="#">SD833-04</a>   | SCHOTTKY BARRIER DIODE<br>(40V/3.0A) | 3 | 40V max | 3.0A max | SD                             |
| <a href="#">SD833-06</a>   | Schottky barrier diode(60V/3A)       | 3 | 60V max | 3A max   |                                |
| <a href="#">SD833-09</a>   | Schottky barrier diode(90V/3A)       | 3 | 90V max | 3A max   |                                |
| <a href="#">SD883-02</a>   | SCHOTTKY BARRIER DIODE<br>(20V/3.0A) | 3 | 20V max | 3.0A max | SD                             |
| <a href="#">SD883-04</a>   | SCHOTTKY BARRIER DIODE<br>(40V/3.0A) | 3 | 40V max | 3.0A max | SD                             |
| <a href="#">YG811S04R</a>  | SCHOTTKY BARRIER DIODE               | 3 | 40V max | 5A max   | TO-220F15(FE)/SC-67<br>(EIAJ)  |
| <a href="#">YG811S06R</a>  | SCHOTTKY BARRIER DIODE               | 3 | 60V max | 5A max   | TO-220F15(FE)/SC-67<br>(EIAJ)  |
| <a href="#">YG811S09R</a>  | SCHOTTKY BARRIER DIODE               | 3 | 90V max | 5A max   | TO-220F15(FE)/SC-67<br>(EIAJ)  |
| <a href="#">YG812S04R</a>  | SCHOTTKY BARRIER DIODE               | 3 | 45V max | 10A max  | TO-220F15(FEJ)/SC-67<br>(EIAJ) |

## SCHOTTKY BARRIER DIODE

### Outline drawings, mm



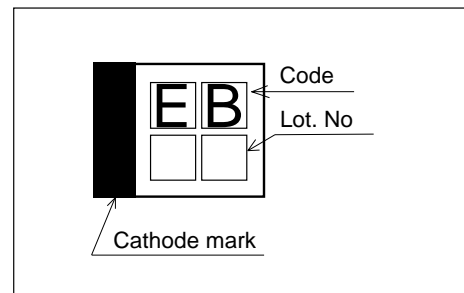
### Features

- Surface-mount device
- Low  $V_F$
- Super high speed switching
- High reliability by planer design

### Applications

- High speed switching

### Marking



### Maximum ratings and characteristics

- Absolute maximum ratings

| Item                                | Symbol    | Conditions                                | Rating      | Unit             |
|-------------------------------------|-----------|---|-------------|------------------|
| Repetitive peak reverse voltage     | $V_{RRM}$ |   | 40          | V                |
| Non-repetitive peak reverse voltage | $V_{RSM}$ | $t_w=500\text{ns}$ , $\text{duty}=1/40$   | 48          | V                |
| Average output current              | $I_o$     | Resistive load<br>$T_I=115^\circ\text{C}$ | 1.0*        | A                |
| Surge current                       | $I_{FSM}$ | Sine wave<br>10ms                         | 40          | A                |
| Operating junction temperature      | $T_j$     |   | -40 to +150 | $^\circ\text{C}$ |
| Storage temperature                 | $T_{stg}$ |   | -40 to +150 | $^\circ\text{C}$ |

\* Mounted on printed circuit board (15 x 15mm)

- Electrical characteristics ( $T_a=25^\circ\text{C}$  Unless otherwise specified)

| Item                 | Symbol        | Conditions         | Max. | Unit               |
|----------------------|---------------|--------------------|------|--------------------|
| Forward voltage drop | $V_{FM}$      | $I_{FM}=1\text{A}$ | 0.55 | V                  |
| Reverse current      | $I_{RRM}$     | $V_R=V_{RRM}$      | 2.0  | mA                 |
| Thermal resistance   | $R_{th(j-l)}$ | Junction to lead   | 15*  | $^\circ\text{C/W}$ |