

B1040P1A

SCHOTTKY BARRIER RECTIFIER DIODE

| | | | |
|----------------|----------------|--------------|------------------|
| VOLTAGE | 40 Volt | POWER | 0.5 Watts |
|----------------|----------------|--------------|------------------|

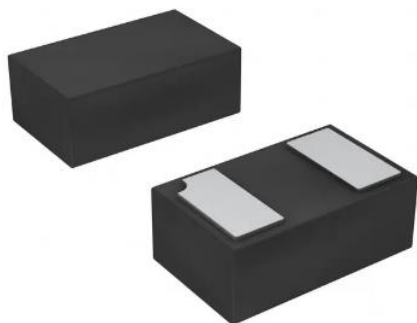
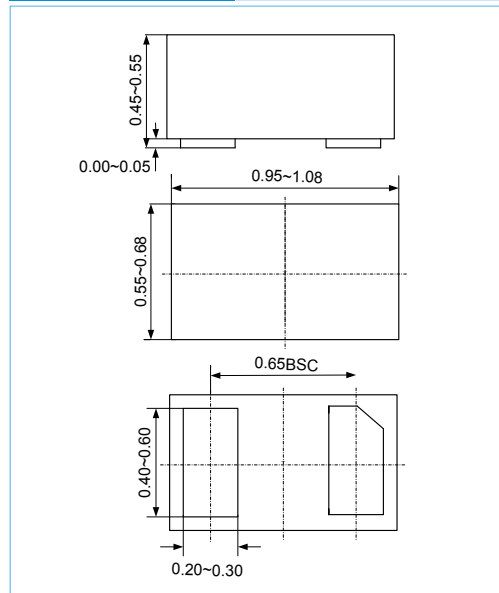
DFN1006-2 Unit:mm

FEATURES

- Metal Silicon Junction, Majority Carrier Conduction
- Low Profile Package
- Low Power Loss, High Efficiency
- High Current Capability
- Low Forward Voltage Drop
- High Surge Current Capability

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0
- Marking Code: 4A/4O



B1040P1A

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

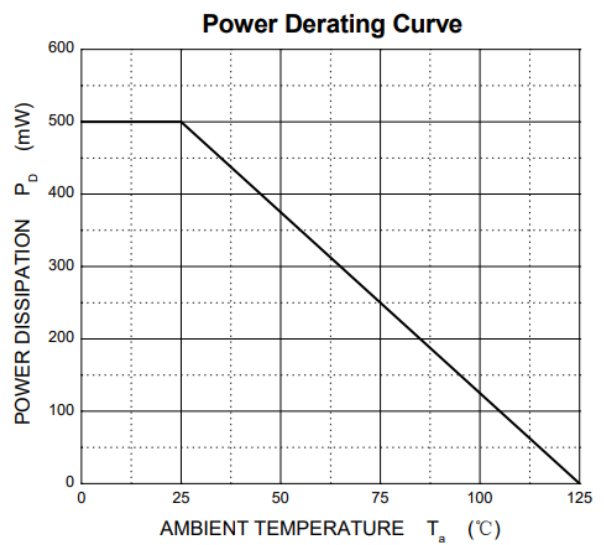
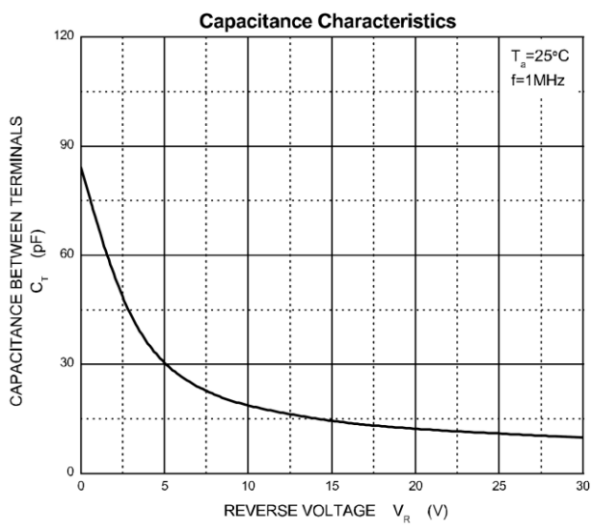
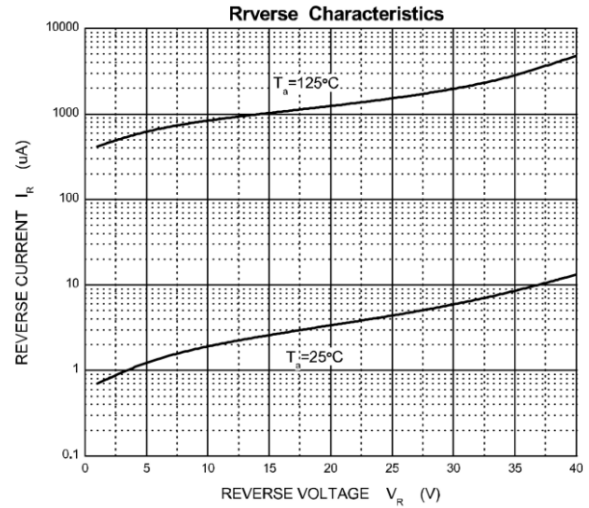
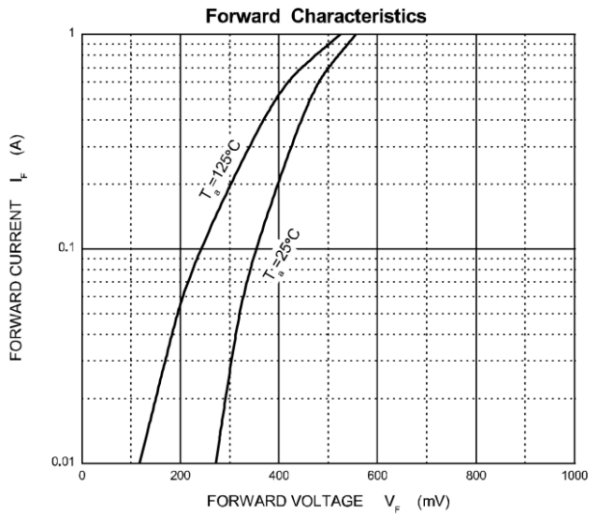
| Parameter | Symbol | Test Conditions | B1040P1A | Unit |
|------------------------------------------------------|-----------------|-------------------------------------------------|----------------------------|------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | | 40 | V |
| Maximum RMS Voltage | V_{RMS} | | 28 | V |
| Maximum DC Blocking Voltage | V_{DC} | | 40 | V |
| Average Rectified Output Current | I_o | | 1.0 | A |
| Surge(Non-repetitive) Forward Current | I_{FSM} | 60Hz Half-sine wave, 1 cycle, $T_a=25^{\circ}C$ | 7.0 | A |
| Power Dissipation | P_D | | 0.5 | W |
| Maximum Forward Voltage | V_F | $I_F=10mA$ | Typical:0.25/Maximum: 0.30 | V |
| | | $I_F=200mA$ | Typical:0.33/Maximum: 0.36 | |
| | | $I_F=500mA$ | Typical:0.40/Maximum: 0.43 | |
| | | $I_F=1A$ | Typical:0.48/Maximum: 0.50 | |
| Reverse Leakage Current at Rated DC Blocking Voltage | I_R | $T_a=25^{\circ}C$ | Typical:10/ Maximum:40 | uA |
| Typical Junction Capacitance | C_J | $V_R=0V, f=1MHz$ | 19 | pF |
| Typical Thermal Resistance ¹ | $R_{\theta JA}$ | Thermal resistance between junction and ambient | 250 | °C/W |
| Operation Temperature Range | T_J | | -40~125 | °C |
| Storage Temperature Range | T_{STG} | | -55~150 | °C |

NOTE:

1.PCB mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

B1040P1A

RATING AND CHARACTERISTIC CURVES

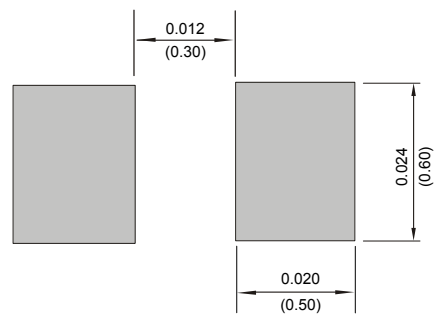


B1040P1A

MOUNTING PAD LAYOUT

DFN1006-2

Unit:Inch(mm)



Ordering Information

- Packing information

| B1040P1A | Packing Quantity |
|----------------|--------------------|
| Tape&Reel | 7Inch; 10kpcs/Reel |
| Bulk(Tube/Box) | N/A |