

# BAT400D

**PRV : 40 Volts**  
**Io : 500 mA**

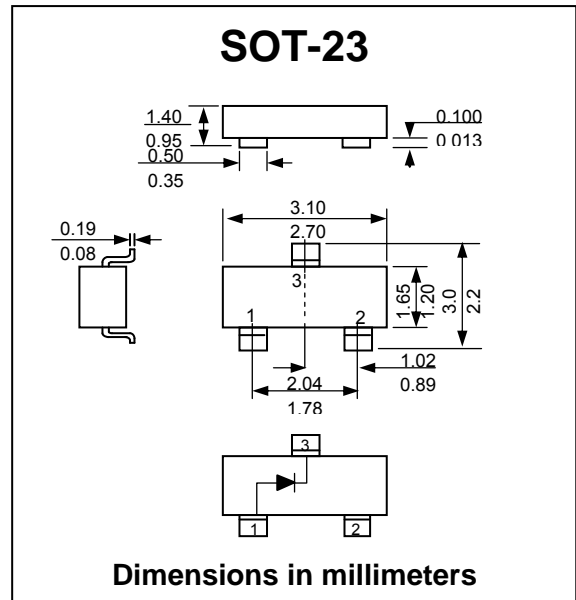
### FEATURES :

- \* Small surface mounting type
- \* Low forward voltage
- \* Low reverse current
- \* Pb / RoHS Free

### MECHANICAL DATA :

- \* Case : SOT-23 plastic Case
- \* Marking Code : " PK "

## SURFACE MOUNT SCHOTTKY BARRIER DIODE



### MAXIMUM RATINGS AND THERMAL CHARACTERISTICS (Ta = 25 °C)

| Parameter   | Symbol          | Value       | Unit |
|---|-----------------|-------------|------|
| Maximum Peak Reverse Voltage  | $V_{RM}$        | 40          | V    |
| Working Peak Reverse Voltage  | $V_{RWM}$       | 40          | V    |
| DC Blocking Voltage   | $V_R$           | 40          | V    |
| RMS Reverse Voltage   | $V_{R(RMS)}$    | 28          | V    |
| Average Forward Current   | $I_{F(AV)}$     | 500         | mA   |
| Peak Forward Surge Current,<br>8.3ms Single half sine wave Superimposed<br>on rated load (JEDEC Method) | $I_{FSM}$       | 3           | A    |
| Power Dissipation   | $P_D$           | 480         | mW   |
| Thermal Resistance Junction to Ambient Air  | $R_{\theta JA}$ | 286         | °C/W |
| Junction Temperature  | $T_J$           | -40 to +125 | °C   |
| Storage Temperature Range   | $T_{STG}$       | -40 to +125 | °C   |

### ELECTRICAL CHARACTERISTICS (Ta = 25 °C)

| Parameter                 | Test Condition                          | Symbol      | Min. | Typ. | Max. | Unit          |
|---------------------------|---|-------------|------|------|------|---------------|
| Forward Voltage           | $I_F = 10 \text{ mA}$                   | $V_F$       | -    | -    | 0.3  | V             |
|                           | $I_F = 500 \text{ mA}$                  |             | -    | -    | 0.55 |               |
| Reverse Breakdown Voltage | $I_R = 1 \text{ mA}$                    | $V_{(BR)R}$ | 40   | -    | -    | V             |
| Reverse Current           | $V_R = 10 \text{ V}$                    | $I_R$       | -    | -    | 30   | $\mu\text{A}$ |
|                           | $V_R = 30 \text{ V}$                    |             | -    | -    | 50   |               |
| Total Capacitance         | $V_R = 0 \text{ V}, f = 1 \text{ MHz}$  | $C_T$       | -    | 125  | -    | pF            |
|                           | $V_R = 10 \text{ V}, f = 1 \text{ MHz}$ |             | -    | 20   | -    |               |

RATINGS AND CHARACTERISTIC CURVES ( BAT400D )

FIG.1 - FORWARD CURRENT DERATING CURVE

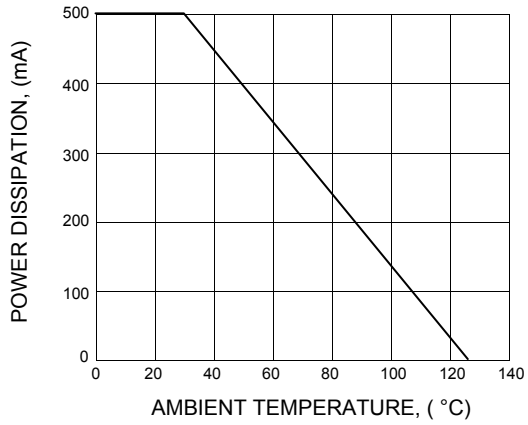


FIG.2 - TYPICAL CAPACITANCE VS. REVERSE VOLTAGE

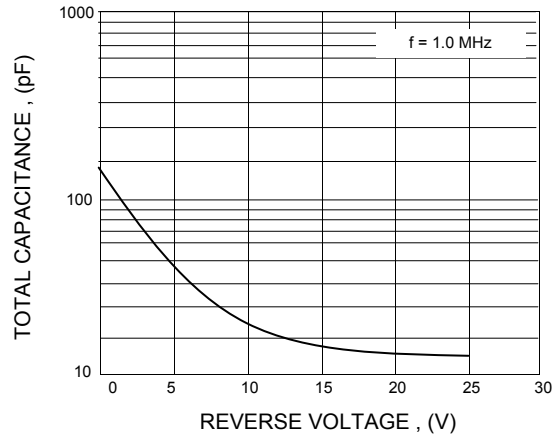


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

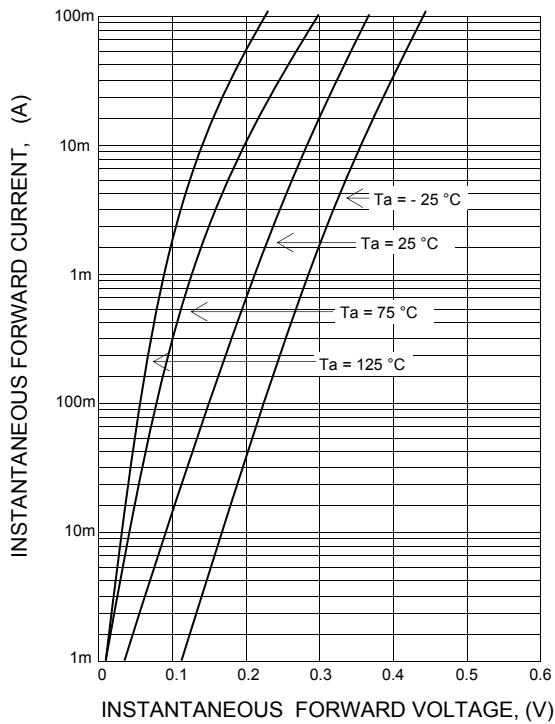


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

