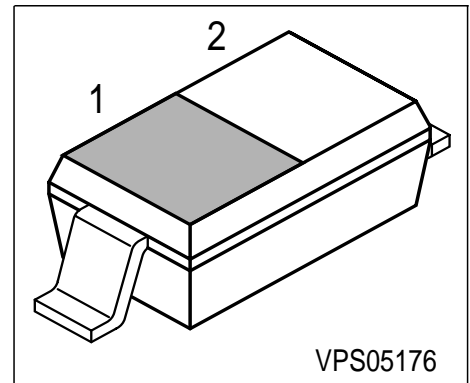**Silicon Schottky Diode**

- High current rectifier Schottky diode with extreme low $V_F$ drop
- For power supply
- For clamping and protection in low voltage applications
- For detection and step-up-conversion



VPS05176

**ESD**: **E**lectro**s**tatic **d**ischarge sensitive device, observe handling precaution!

| Type | Marking | Pin Configuration | | Package |
|------|---------|-------------------|------|---------|
| BAT60A | white/3 | 1 = C | 2 = A | SOD323 |

**Maximum Ratings**

| Parameter | Symbol | Value | Unit |
|-----------|--------|-------|------|
| Diode reverse voltage | $V_R$ | 10 | V |
| Forward current | $I_F$ | 3 | A |
| Surge forward current (t < 10ms) | $I_{FSM}$ | 5 | |
| Total power dissipation, $T_S = 28\ °C$ | $P_{tot}$ | 1350 | mW |
| Junction temperature | $T_j$ | 150 | °C |
| Storage temperature | $T_{stg}$ | -55 ... 150 | |

**Thermal Resistance**

| | | | |
|---|---|---|---|
| Junction - soldering point[1] | $R_{thJS}$ | $\leq 90$ | K/W |

[1]For calculation of $R_{thJA}$ please refer to Application Note Thermal Resistance

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**Electrical Characteristics** at $T_A$ = 25 °C, unless otherwise specified.

| Parameter | Symbol | Values | | | Unit |
|---|---|---|---|---|---|
| | | min. | typ. | max. | |
| **DC characteristics** | | | | | |
| Reverse current | $I_R$ | | | | mA |
| $V_R$ = 5 V | | - | 0.3 | - | |
| $V_R$ = 8 V | | - | 0.6 | 2.6 | |
| Reverse current | $I_R$ | - | 18 | - | |
| $V_R$ = 8 V, $T_A$ = 80 °C | | | | | |
| Forward voltage | $V_F$ | | | | V |
| $I_F$ = 10 mA | | 0.1 | 0.12 | 0.15 | |
| $I_F$ = 100 mA | | - | 0.2 | - | |
| $I_F$ = 1000 mA | | - | 0.3 | - | |
| **AC characteristics** | | | | | |
| Diode capacitance | $C_T$ | - | 20 | - | pF |
| $V_R$ = 5 V, $f$ = 1 MHz | | | | | |

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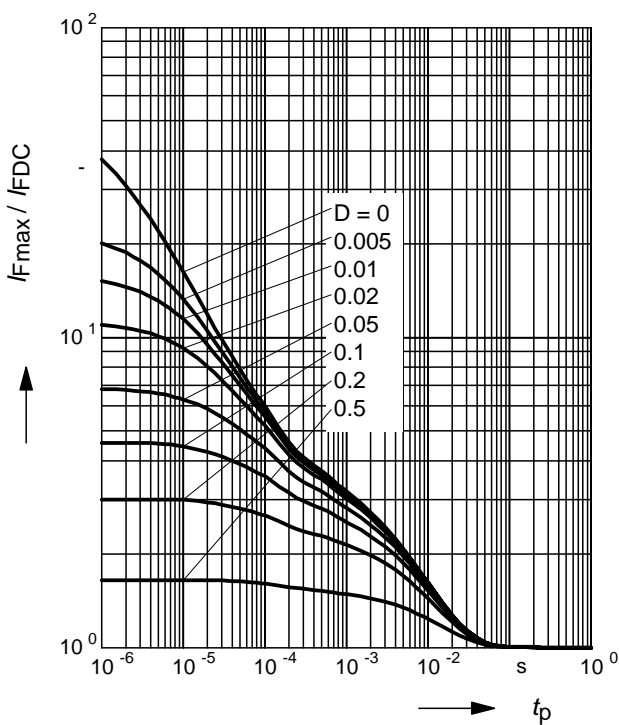**Forward current** $I_F = f(T_S)$
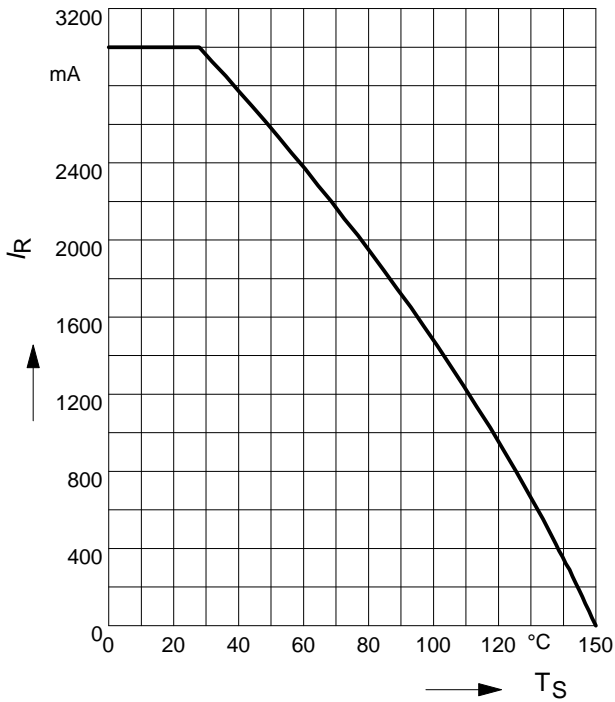


**Permissible Pulse Load** $R_{thJS} = f(t_p)$
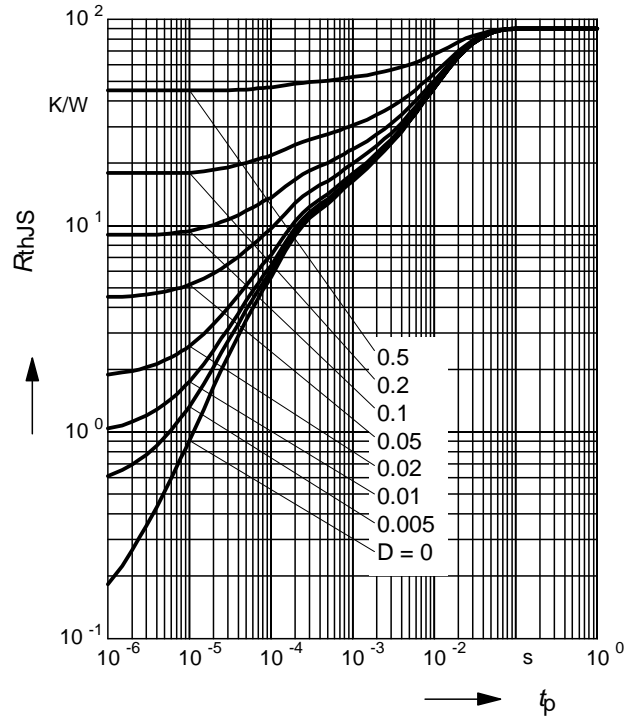


**Permissible Pulse Load**

$I_{Fmax} / I_{FDC} = f(t_p)$



**Reverse current** $I_R = f(V_R)$

$T_A$ = Parameter

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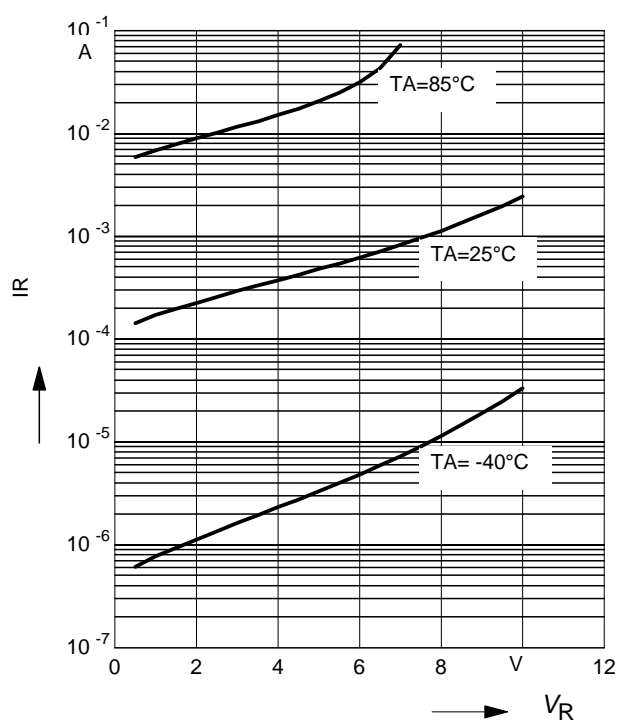
**Forward current** $I_F = f(V_F)$

$T_A$ = Parameter



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