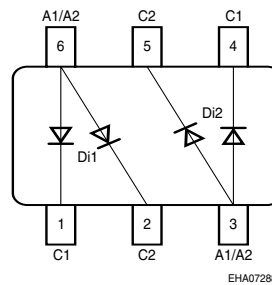
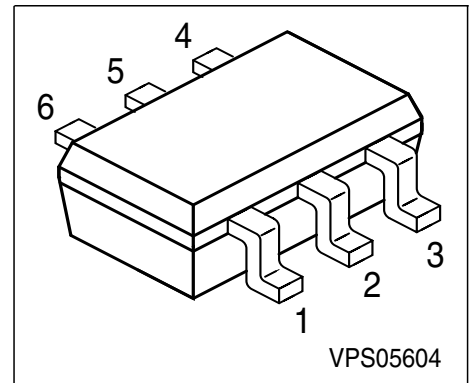


**Silicon Schottky Diode Array**

- General-purpose diode for high-speed switching
- Circuit protection
- Voltage clamping
- High-level detecting and mixing



| Type       | Marking | Pin Configuration |      |         |      |      |         | Package |
|------------|---------|-------------------|------|---------|------|------|---------|---------|
| BAS 70-06S | 76s     | 1=C1              | 2=C2 | 3=A1/A2 | 4=C1 | 5=C2 | 6=A1/A2 | SOT-363 |

**Maximum Ratings**

| Parameter  | Symbol    | Value       | Unit             |
|--|-----------|-------------|------------------|
| Diode reverse voltage  | $V_R$     | 70          | V                |
| Forward current  | $I_F$     | 70          | mA               |
| Surge forward current ( $t < 10\text{ms}$ )                  | $I_{FSM}$ | 100         |                  |
| Total power dissipation, $T_S \leq 72\text{ }^\circ\text{C}$ | $P_{tot}$ | 250         | mW               |
| Junction temperature   | $T_j$     | 150         | $^\circ\text{C}$ |
| Operating temperature range                                  | $T_{op}$  | -55 ... 150 |                  |
| Storage temperature  | $T_{stg}$ | -55 ... 150 |                  |

**Thermal Resistance**

|                                  |            |            |     |
|----------------------------------|------------|------------|-----|
| Junction - ambient <sup>1)</sup> | $R_{thJA}$ | $\leq 545$ | K/W |
| Junction - soldering point       | $R_{thJS}$ | $\leq 310$ |     |

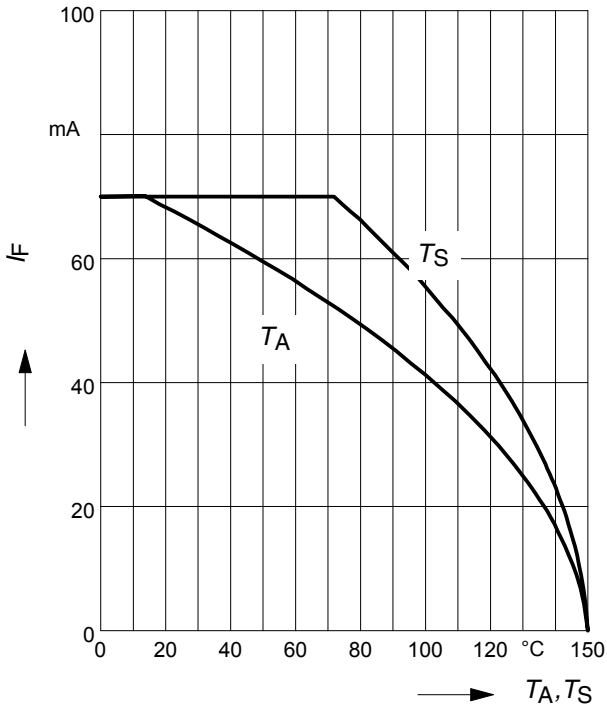
1) Package mounted on epoxy pcb 40mm x 40mm x 1.5mm / 0.5cm<sup>2</sup> Cu

**Electrical Characteristics** at  $T_A = 25^\circ\text{C}$ , unless otherwise specified.

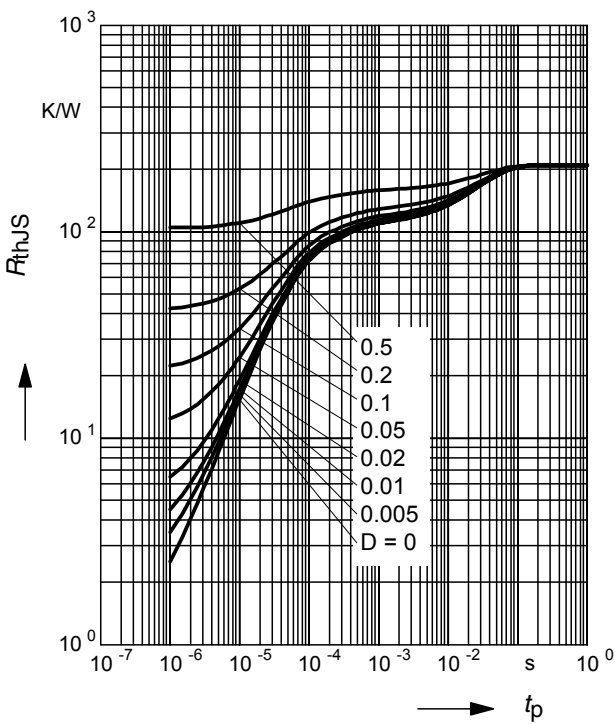
| Parameter   | Symbol     | Values            |                   |                    | Unit          |
|---|------------|-------------------|-------------------|--------------------|---------------|
|   |            | min.              | typ.              | max.               |               |
| <b>DC characteristics</b>   |            |                   |                   |                    |               |
| Breakdown voltage<br>$I_{(BR)} = 10 \mu\text{A}$  | $V_{(BR)}$ | 70                | -                 | -                  | V             |
| Reverse current<br>$V_R = 50 \text{ V}$<br>$V_R = 70 \text{ V}$                           | $I_R$      | -<br>-            | -<br>-            | 0.1<br>10          | $\mu\text{A}$ |
| Forward voltage<br>$I_F = 1 \text{ mA}$<br>$I_F = 10 \text{ mA}$<br>$I_F = 15 \text{ mA}$ | $V_F$      | 300<br>600<br>750 | 375<br>705<br>880 | 410<br>750<br>1000 | mV            |
| <b>AC characteristics</b>   |            |                   |                   |                    |               |
| Diode capacitance<br>$V_R = 0 \text{ V}, f = 1 \text{ MHz}$                               | $C_T$      | -                 | 1.6               | 2                  | pF            |
| Charge carrier life time<br>$I_F = 25 \text{ mA}$   | $\tau$     | -                 | -                 | 100                | ps            |
| Differential forward resistance<br>$I_F = 10 \text{ mA}, f = 100 \text{ MHz}$             | $R_F$      | -                 | 30                | -                  | $\Omega$      |

**Forward current  $I_F = f(T_A^*; T_S)$**

\* Package mounted on epoxy

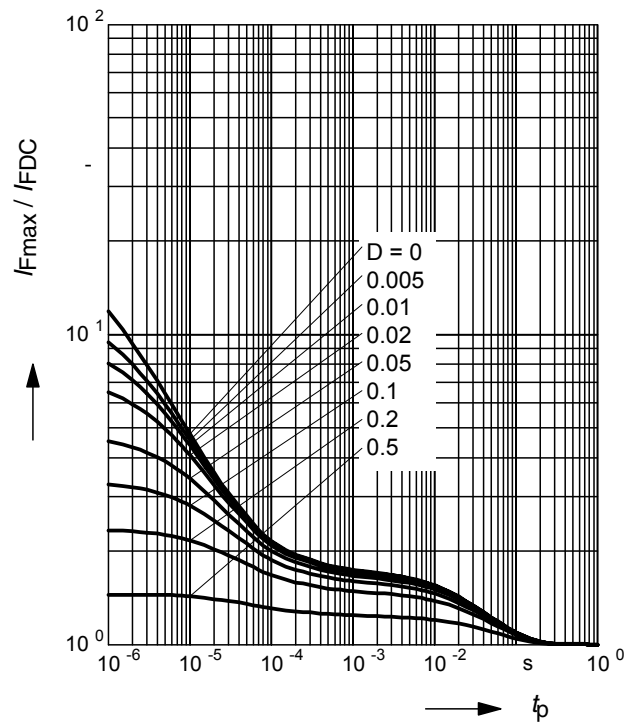


**Permissible Pulse Load  $R_{thJS} = f(t_p)$**



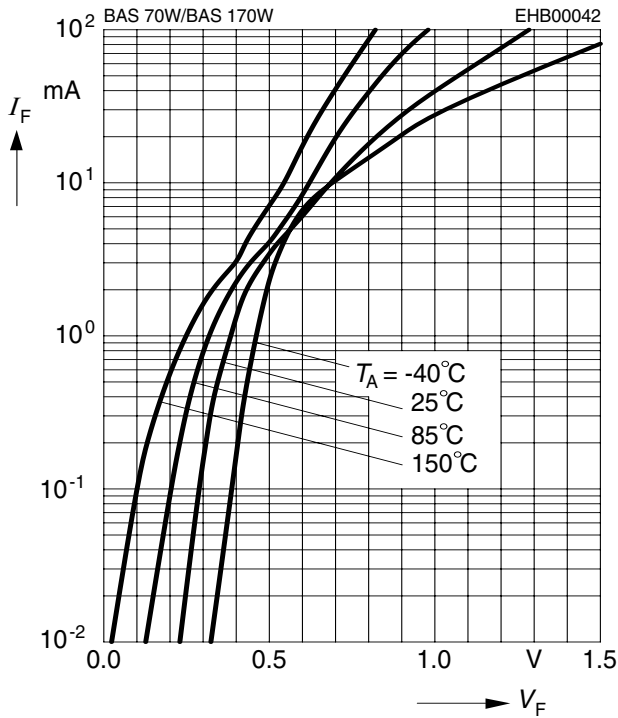
**Permissible Pulse Load**

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



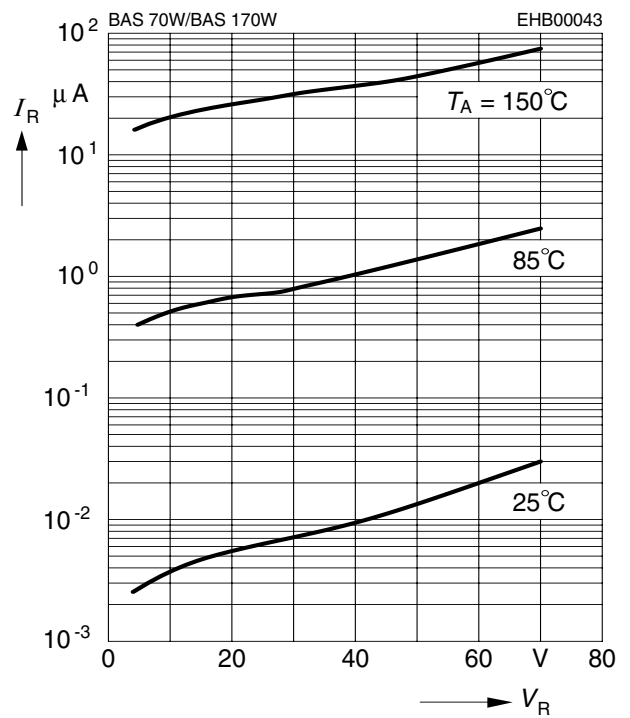
**Forward current  $I_F = f(V_F)$**

$T_A = \text{Parameter}$



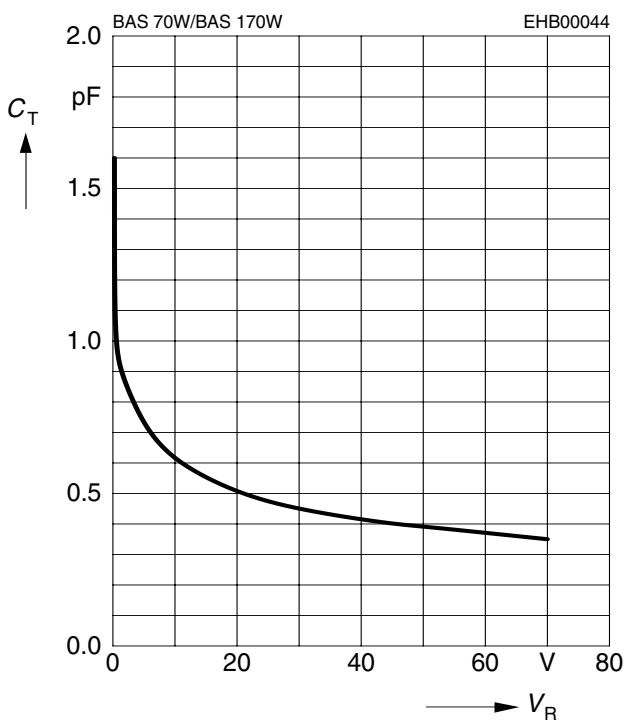
**Reverse current  $I_R = f(V_R)$**

$T_A = \text{Parameter}$



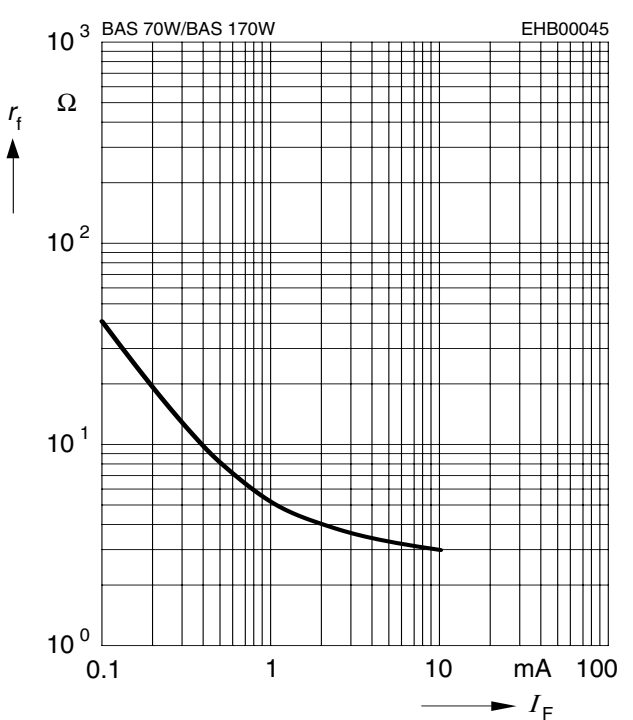
**Diode capacitance  $C_T = f(V_R)$**

$f = 1\text{MHz}$



**Differential forward resistance  $r_f = f(I_F)$**

$f = 10\text{kHz}$





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