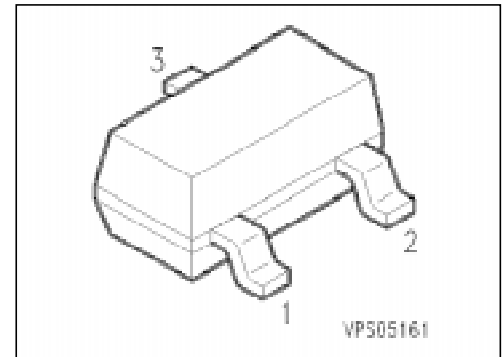


Silicon Schottky Diodes

BAS 125 ...

- For low-loss, fast-recovery, meter protection, bias isolation and clamping applications
- Integrated diffused guard ring
- Low forward voltage

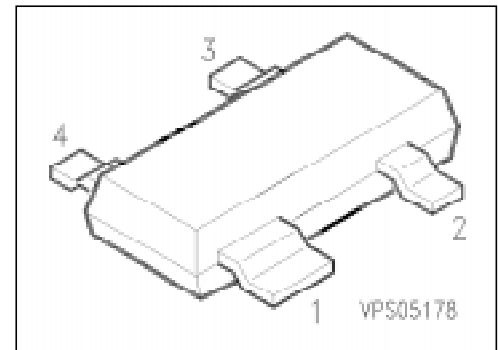


ESD: Electrostatic discharge sensitive device, observe handling precautions!

| Type | Marking | Ordering Code (tape and reel) | Pin Configuration | Package ¹⁾ |
|------------|---------|-------------------------------|-------------------|-----------------------|
| BAS 125 | 13 | Q62702-D1316 | | SOT-23 |
| BAS 125-04 | 14 | Q62702-D1321 | | |
| BAS 125-05 | 15 | Q62702-D1322 | | |
| BAS 125-06 | 16 | Q62702-D1323 | | |

¹⁾ For detailed information see chapter Package Outlines.

- For low-loss, fast-recovery, meter protection, bias isolation and clamping applications
- Integrated diffused guard ring
- Low forward voltage



ESD: Electrostatic discharge sensitive device, observe handling precautions!

| Type | Marking | Ordering Code (tape and reel) | Pin Configuration | Package ¹⁾ |
|------------|---------|-------------------------------|-------------------|-----------------------|
| BAS 125-07 | 17 | Q62702-D1327 | | SOT-143 |

Maximum Ratings per Diode

| Parameter | Symbol | Values | Unit |
|---|-----------|----------------|------|
| Reverse voltage | V_R | 25 | V |
| Forward current | I_F | 100 | mA |
| Surge forward current, $t \leq 10$ ms | I_{FSM} | 500 | |
| Total power dissipation, $T_s \leq 25$ °C ³⁾ | P_{tot} | 250 | mW |
| Junction temperature | T_j | 150 | °C |
| Storage temperature range | T_{stg} | - 55 ... + 150 | |

Thermal Resistance

| | | | |
|----------------------------------|-------------|------------|-----|
| Junction - ambient ²⁾ | $R_{th JA}$ | ≤ 725 | K/W |
| Junction - soldering point | $R_{th JS}$ | ≤ 565 | |

1) For detailed information see chapter Package Outlines.

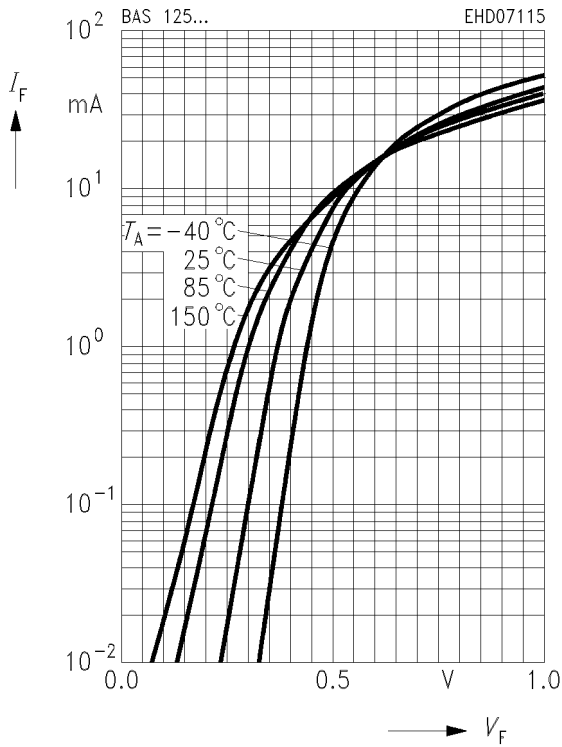
2) Package mounted on alumina 15 mm × 16.7 mm × 0.7 mm.

3) 450 mW per package.

Electrical Characteristics per Diode
at $T_A = 25\text{ °C}$, unless otherwise specified.

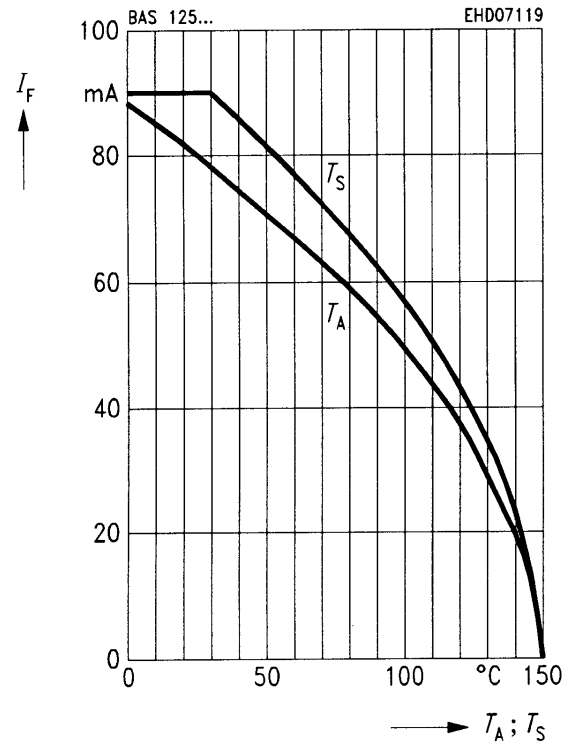
| Parameter | Symbol | Values | | | Unit |
|--|--------|-------------|-------------------|-----------------|---------------|
| | | min. | typ. | max. | |
| Reverse current $V_R = 20\text{ V}$ $V_R = 25\text{ V}$ | I_R | – – | – – | 1 10 | μA |
| Forward voltage $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$ $I_F = 35\text{ mA}$ | V_F | – – – | 385 530 800 | 410 – 900 | mV |
| Diode capacitance $V_R = 0, f = 1\text{ MHz}$ | C_T | – | – | 1.1 | pF |
| Differential forward resistance $I_F = 5\text{ mA}, f = 10\text{ kHz}$ | R_F | – | 15 | – | Ω |

Forward current $I_F = f(V_F)$



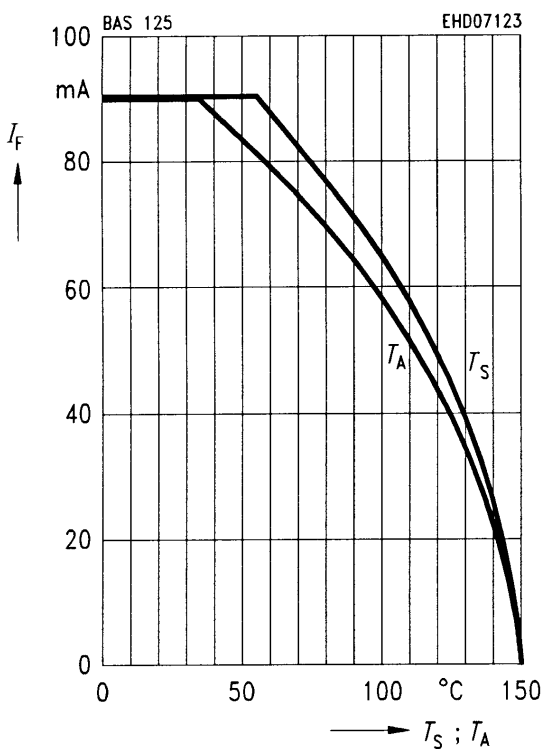
Forward current $I_F = f(T_S; T_A^*)$

*Package mounted on alumina
BAS 125-04, -05, -06, -07

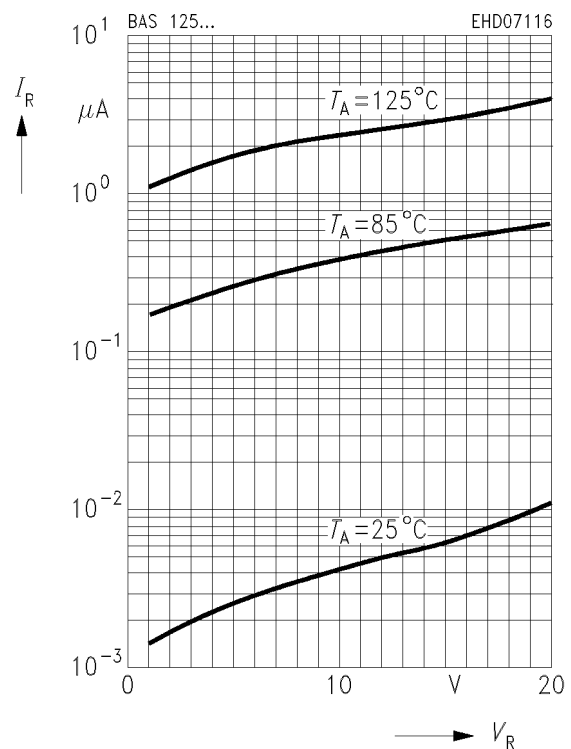


Forward current $I_F = f(T_S; T_A^*)$

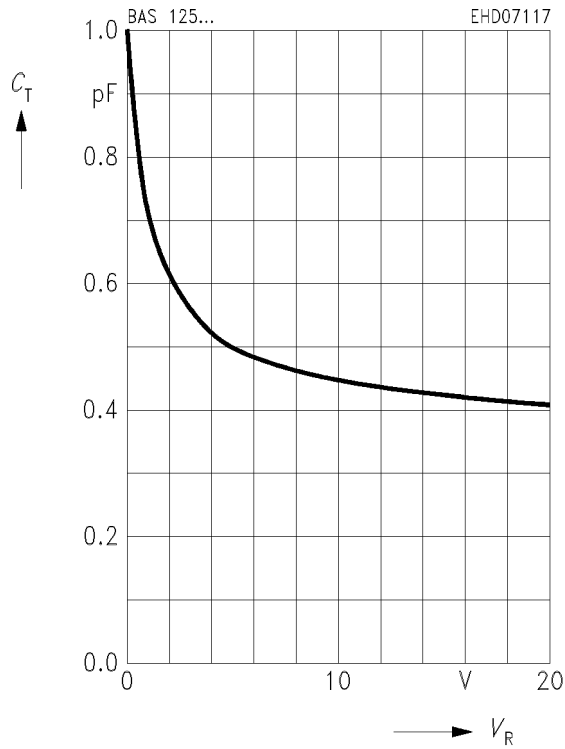
*Package mounted on alumina
BAS 125



Reverse current $I_R = f(V_R)$



Diode capacitance $C_T = f(V_R)$
 $f = 1 \text{ MHz}$



Differential forward resistance $R_F = f(I_F)$
 $f = 10 \text{ kHz}$

