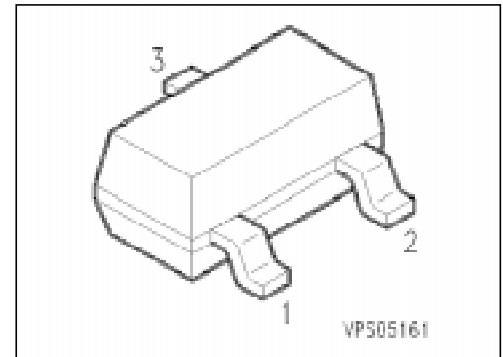


## Silicon Schottky Diodes

## BAS 125 ...

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

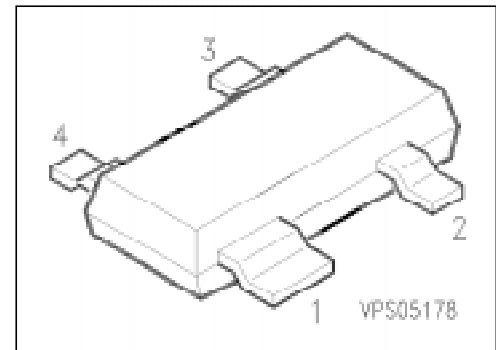


**ESD:** Electrostatic discharge sensitive device, observe handling precautions!

Type	Marking	Ordering Code (tape and reel)	Pin Configuration	Package <sup>1)</sup>
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		

<sup>1)</sup> 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 <sup>1)</sup>
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 <sup>3)</sup>	$P_{tot}$	250	mW
Junction temperature	$T_j$	150	°C
Storage temperature range	$T_{stg}$	- 55 ... + 150	

### Thermal Resistance

Junction - ambient <sup>2)</sup>	$R_{th JA}$	$\leq 725$	K/W
Junction - soldering point	$R_{th JS}$	$\leq 565$	

<sup>1)</sup> For detailed information see chapter Package Outlines.

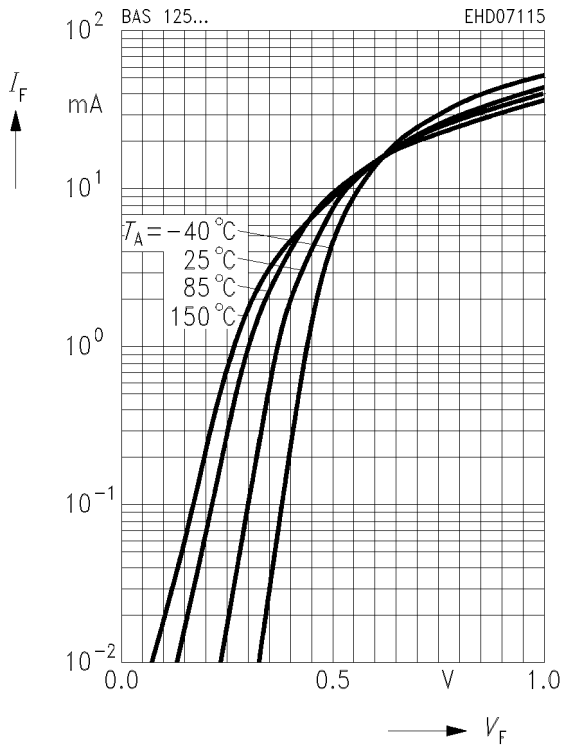
<sup>2)</sup> Package mounted on alumina 15 mm × 16.7 mm × 0.7 mm.

<sup>3)</sup> 450 mW per package.

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

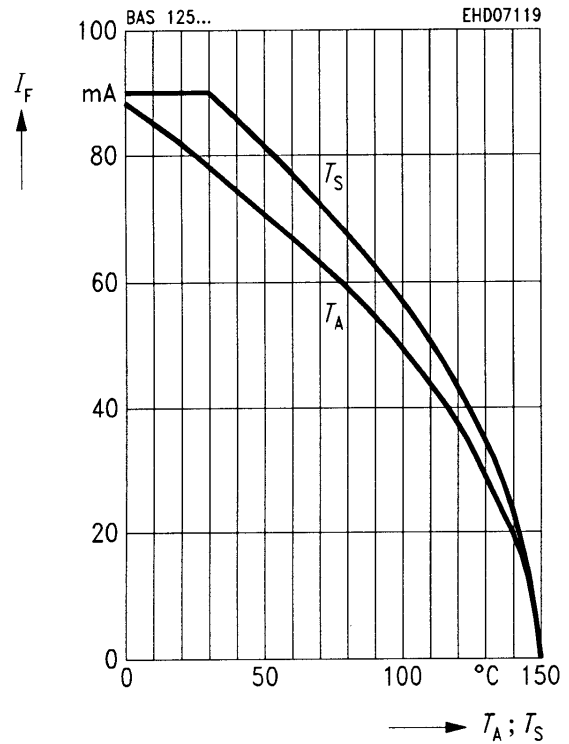
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
Reverse current $V_R = 20\text{ V}$ $V_R = 25\text{ V}$	$I_R$	– –	– –	1 10	$\mu\text{A}$
Forward voltage $I_F = 1\text{ mA}$ $I_F = 10\text{ mA}$ $I_F = 35\text{ mA}$	$V_F$	– – –	385 530 800	410 – 900	mV
Diode capacitance $V_R = 0, f = 1\text{ MHz}$	$C_T$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

Forward current  $I_F = f(V_F)$



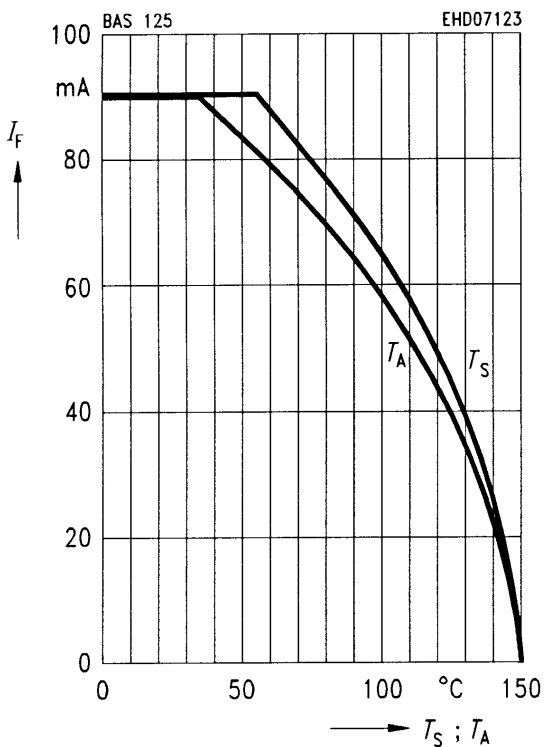
Forward current  $I_F = f(T_S; T_A^*)$

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

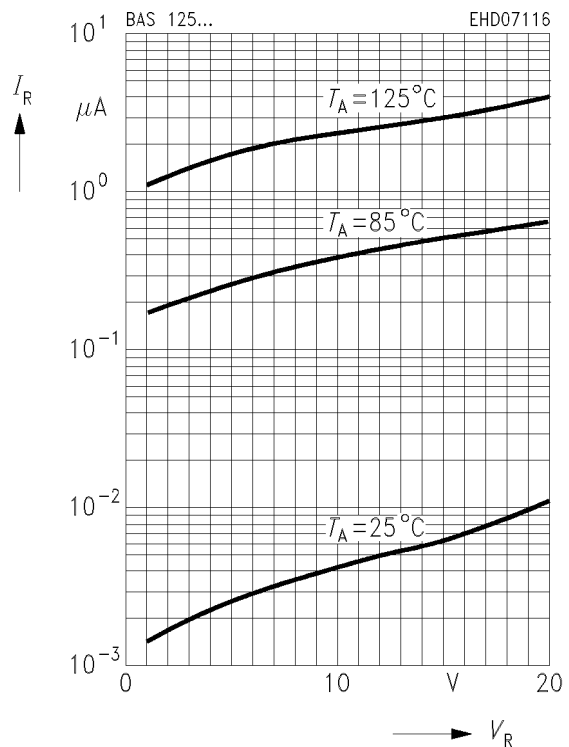


Forward current  $I_F = f(T_S; T_A^*)$

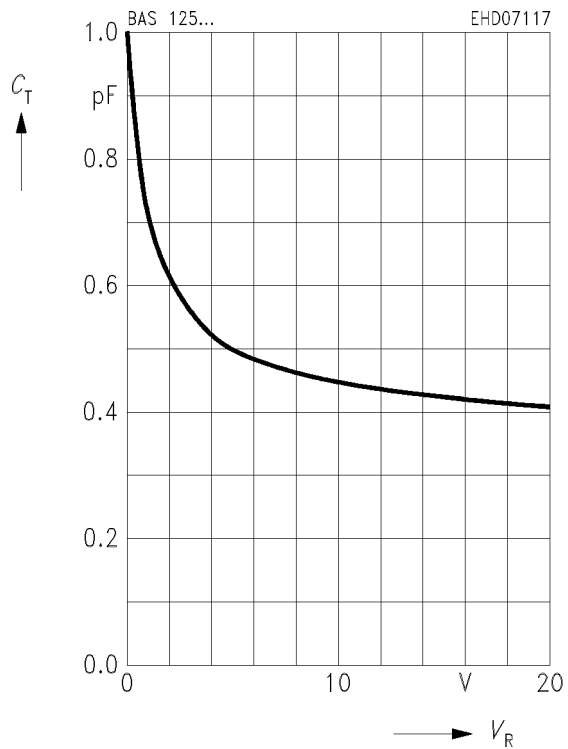
\*Package mounted on alumina  
BAS 125



Reverse current  $I_R = f(V_R)$



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



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

