THE DATASHEET OF

BAS125-06WE6327

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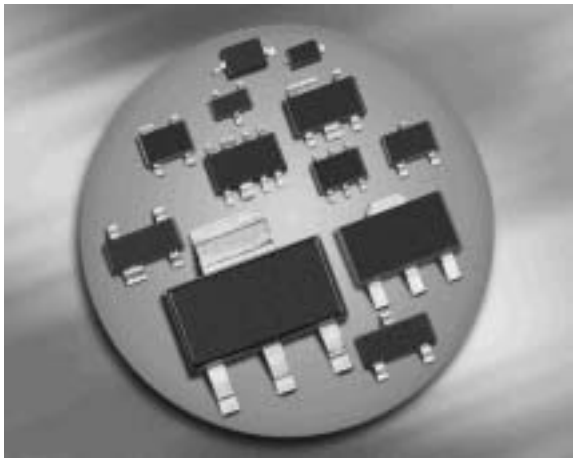
Silicon Schottky Diodes

- For low-loss, fast-recovery, meter protection, bias isolation and clamping application
- Integrated diffused guard ring
- Low forward voltage
- Pb-free (RoHS compliant) package[1)]
- Qualified according AEC Q101



BAS125-04W **BAS125-05W** **BAS125-06W** **BAS125-07W**

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

Type	Package	Configuration	L_S(nH)	Marking
BAS125-04W	SOT323	series	1.4	14s
BAS125-05W	SOT323	common cathode	1.4	15s
BAS125-06W	SOT323	common anode	1.4	16s
BAS125-07W	SOT343	parallel pair	1.6	17s

Maximum Ratings at T_A = 25°C, unless otherwise specified

Parameter	Symbol	Value	Unit
Diode reverse voltage	V_R	25	V
Forward current	I_F	100	mA
Non-repetitive peak surge forward current	I_{FSM}	500	
Total power dissipation	P_{tot}		mW
BAS125-04W, BAS125-06W, $T_S \leq 84$°C		250	
BAS125-05W, $T_S \leq 76$°C		250	
BAS125-07W, $T_S \leq 96$°C		250	
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ... 150	

[1]Pb-containing package may be available upon special request

Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point[1)]	R_{thJS}		K/W
BAS125-04W, BAS125-06W		≤ 365	
BAS125-05W		≤ 295	
BAS125-07W		≤ 215	

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

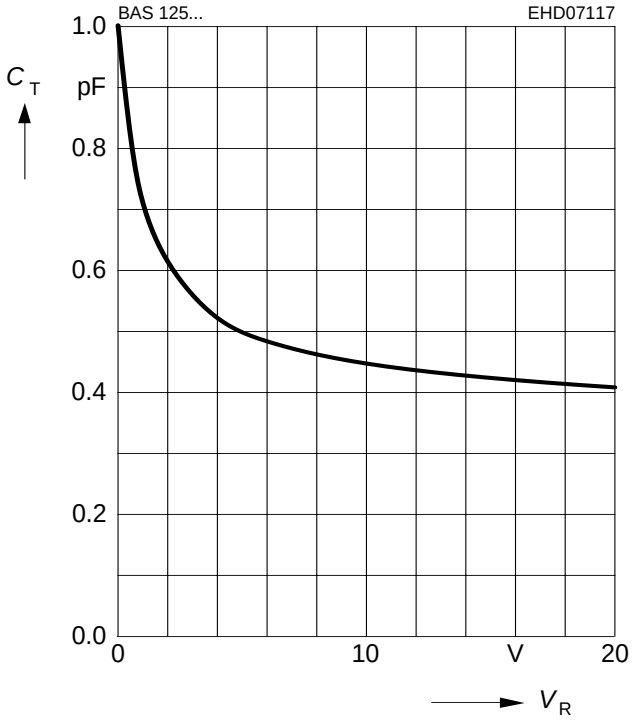
Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Reverse current	I_R				nA
V_R = 20 V		-	-	100	
V_R = 25 V		-	-	150	
Forward voltage	V_F				mV
I_F = 1 mA		-	385	400	
I_F = 10 mA		-	530	650	
I_F = 35 mA		-	800	950	
Forward voltage matching[2)]	ΔV_F	-	-	20	
I_F = 10 mA					
AC Characteristics					
Diode capacitance	C_T	-	-	1.1	pF
V_R = 0 , f = 1 MHz					
Differential forward resistance	R_F	-	15	-	Ω
I_F = 5 mA, f = 10 kHz					

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

[2]ΔV_F is the difference between lowest and highest V_F in a multiple diode component.

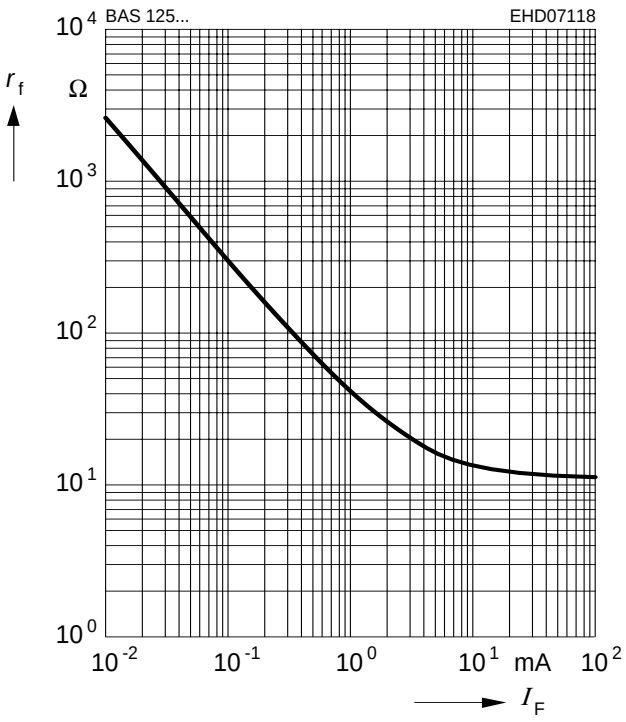
Diode capacitance $C_T = f(V_R)$

f = 1MHz



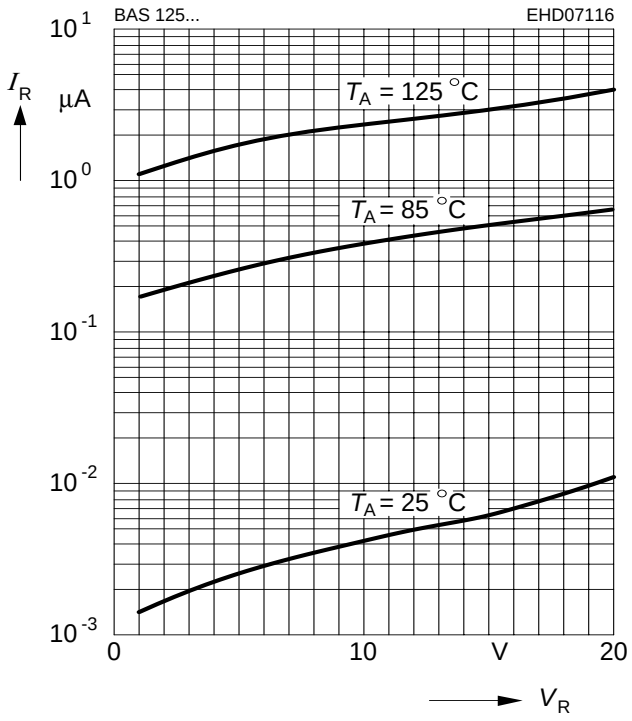
Forward resistance $r_f = f(I_F)$

f = 10 kHz



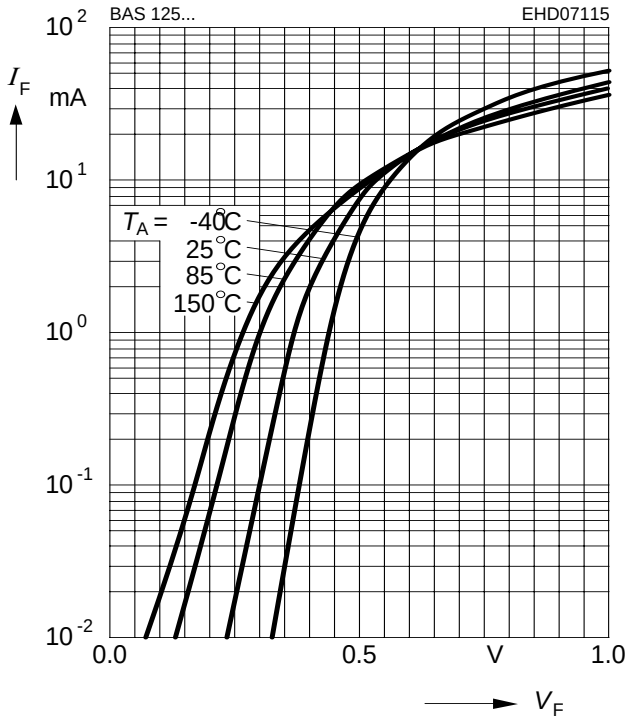
Reverse current $I_R = f(V_R)$

T_A = Parameter



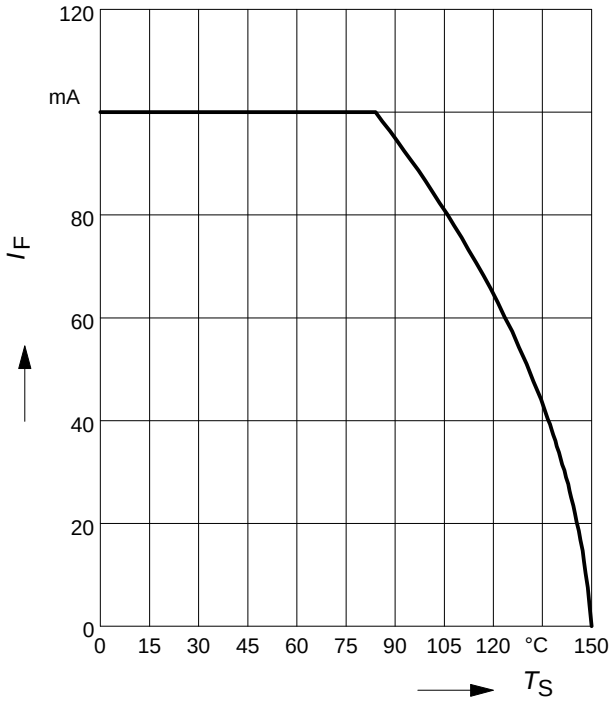
Forward current $I_F = f(V_F)$

T_A = Parameter



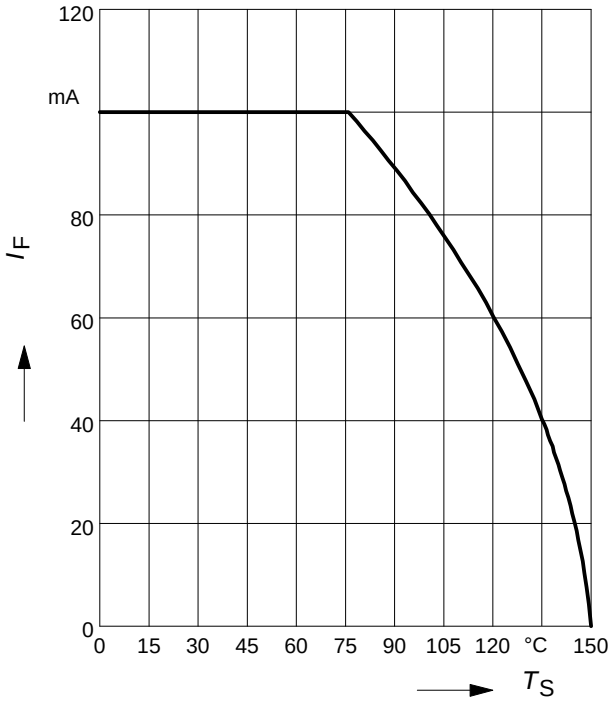
Forward current $I_F = f(T_S)$

BAS125-04W, BAS125-06W



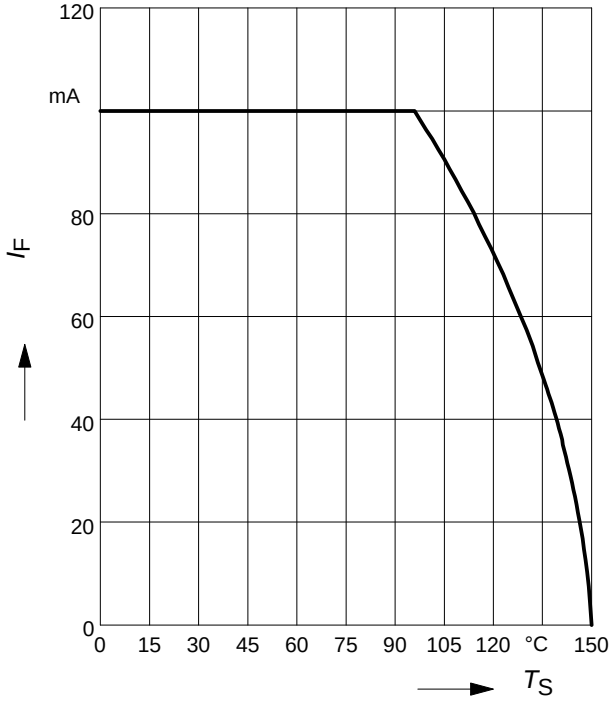
Forward current $I_F = f(T_S)$

BAS125-05W



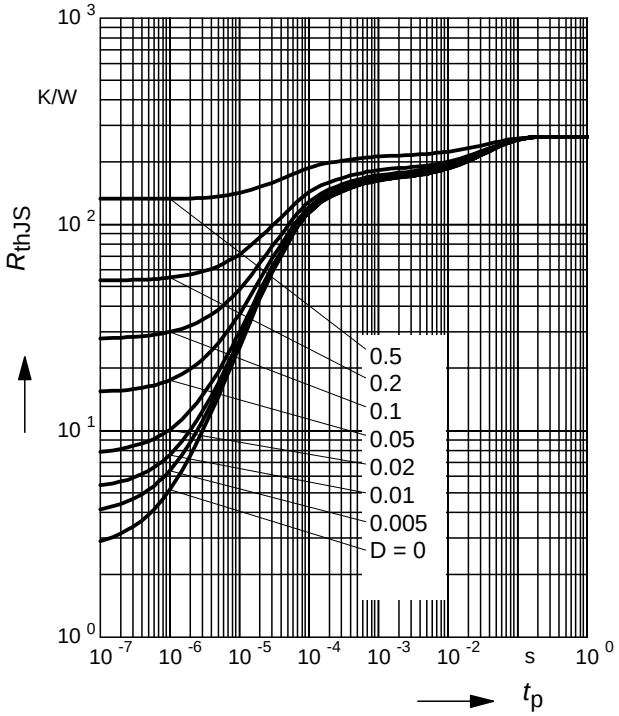
Forward current $I_F = f(T_S)$

BAS125-07W



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

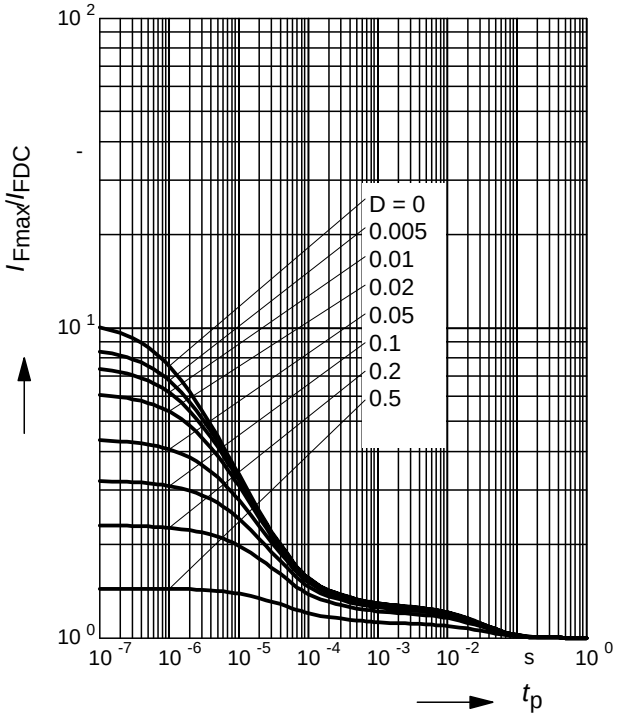
BAS125-04W, BAS125-06W



Permissible Pulse Load

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

BAS125-04W, BAS125-06W



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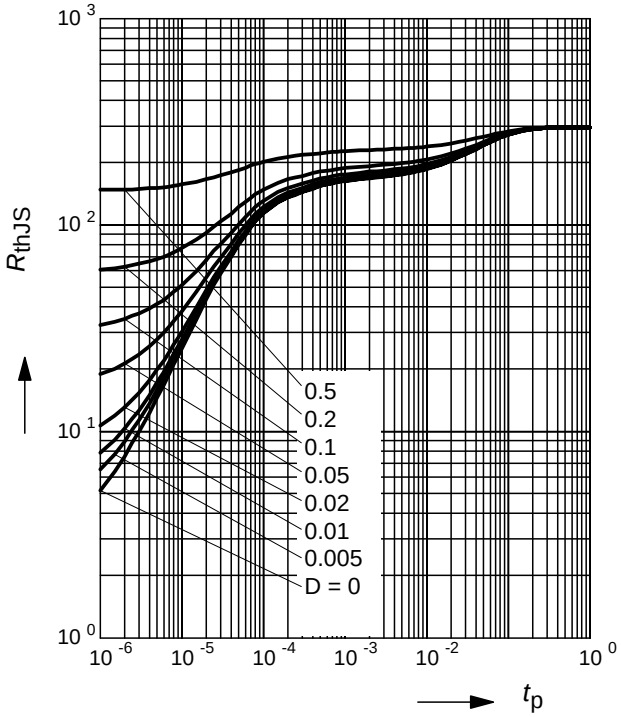

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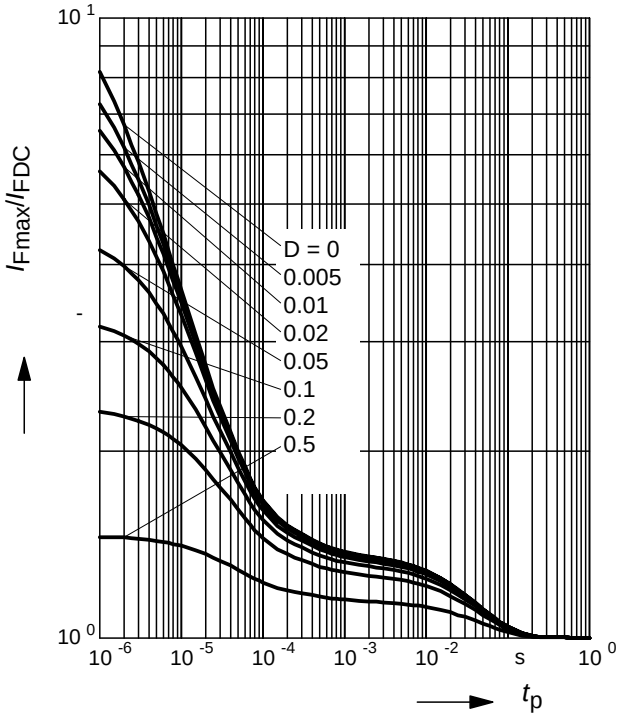
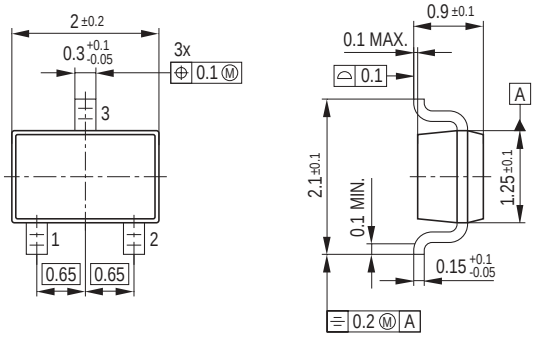
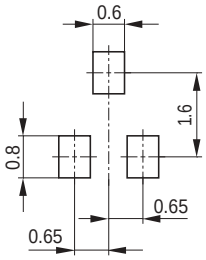


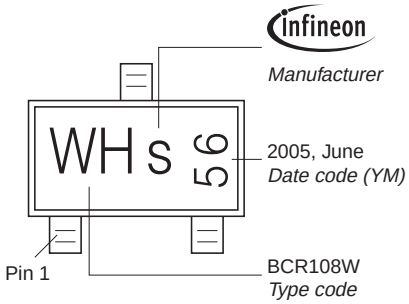
Package Outline



Foot Print

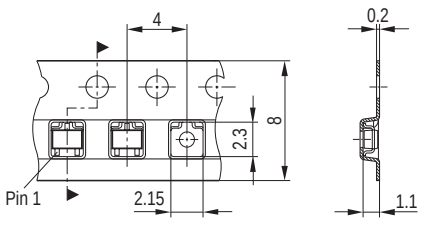


Marking Layout (Example)



Standard Packing

Reel ø180 mm = 3.000 Pieces/Reel
Reel ø330 mm = 10.000 Pieces/Reel



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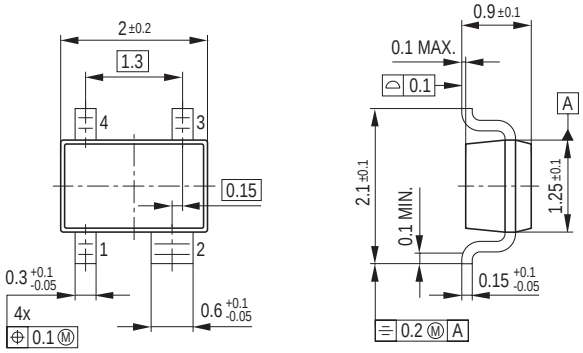

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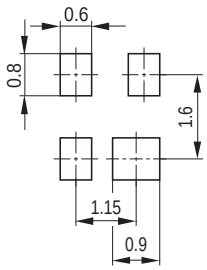

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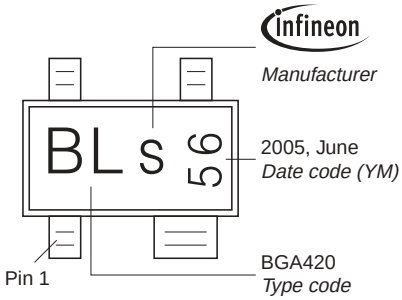

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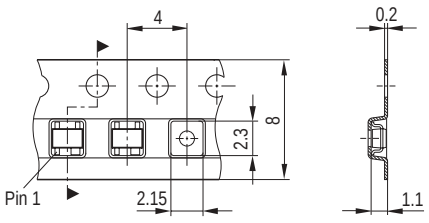

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