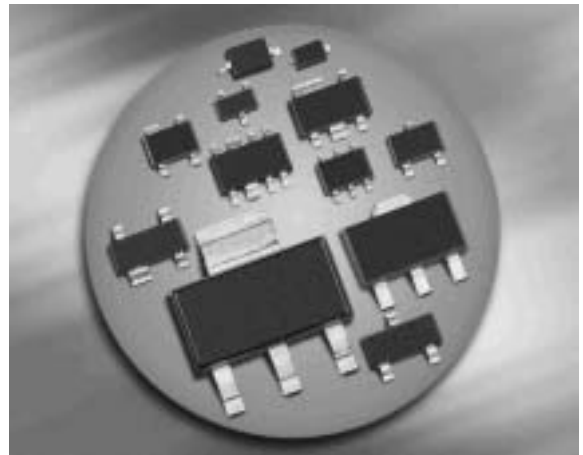
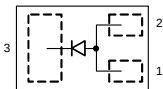


Low VF Schottky Diode

- Forward current: 1 A
- Reverse voltage: 30 V
- Low forward voltage and smallest package form factor ($1.0 \times 0.6 \times < 0.4$ mm) for mobile phone battery charger application
- Pb-free (RoHS compliant) package¹⁾
- Qualified according AEC Q101



BAS3010S-03LRH



Type	Package	Configuration	Marking
BAS3010S-03LRH*	TSLP-3-7	single	1S

* Preliminary data

Maximum Ratings at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Value	Unit
Diode reverse voltage ²⁾	V_R	30	V
Forward current ²⁾³⁾	I_F	1	A
Repetitive peak forward current ³⁾ ($t_p \leq 1$ ms, $D \leq 0.25$)	I_{FRM}	3.5	A
Non-repetitive peak surge forward current ³⁾ ($t \leq 10$ ms)	I_{FSM}	5	
Junction temperature	T_j	150	$^\circ\text{C}$
Operating temperature range	T_{op}	-55 ... 125	
Storage temperature	T_{stg}	-65 ... 150	

¹⁾Pb-containing package may be available upon special request

²⁾For $T_A > 25^\circ\text{C}$ the derating of V_R and I_F has to be considered.

³⁾Only valid if pin 1 and 2 are connected in parallel

Thermal Resistance

Parameter	Symbol	Value	Unit
Junction - soldering point ¹⁾	R_{thJS}	≤ 38	K/W

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

Parameter	Symbol	Values			Unit
		min.	typ.	max.	

DC Characteristics

Reverse current ²⁾	I_R	-	-	-	μA
$V_R = 5\text{ V}$		-	-	15	
$V_R = 10\text{ V}$		-	-	30	
$V_R = 30\text{ V}$		-	-	300	
Forward voltage ²⁾	V_F	-	-	-	mV
$I_F = 100\text{ mA}$		-	340	390	
$I_F = 350\text{ mA}$		-	400	450	
$I_F = 1000\text{ mA}$		-	570	650	

AC Characteristics

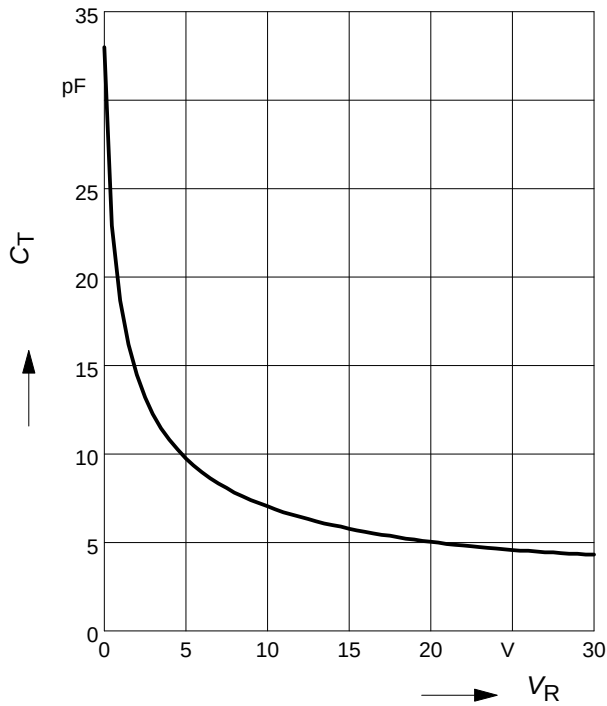
Diode capacitance	C_T	-	10	15	pF
$V_R = 5\text{ V}, f = 1\text{ MHz}$					

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

²⁾Pulsed test: $t_p = 300\text{ }\mu\text{s}$; $D = 0.01$

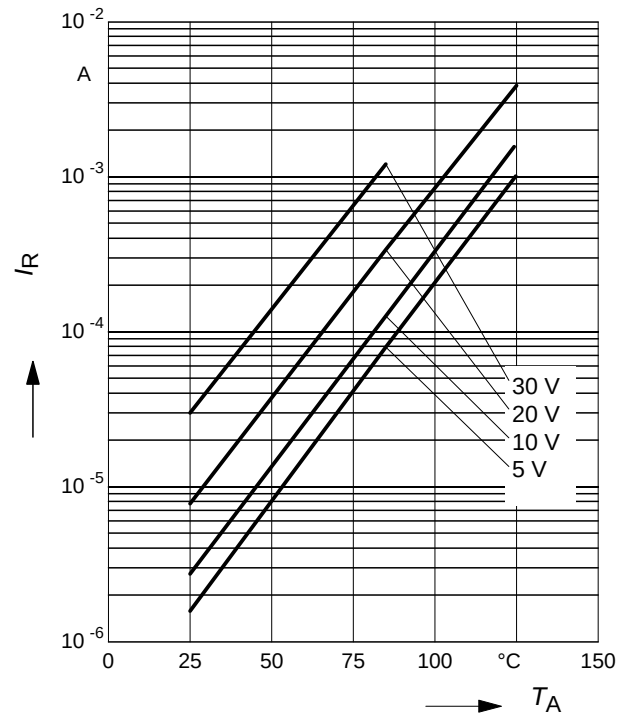
Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$



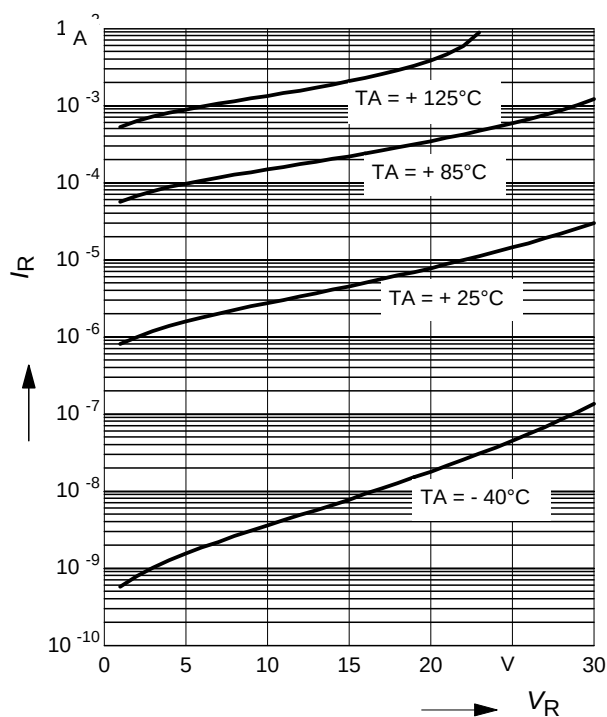
Reverse current $I_R = f(T_A)$

$V_R = \text{Parameter}$



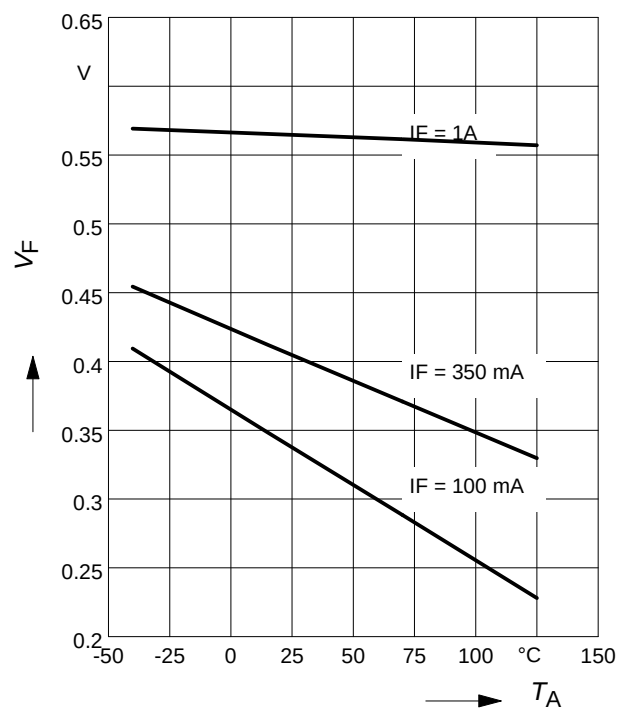
Reverse current $I_R = f(V_R)$

$T_A = \text{Parameter}$



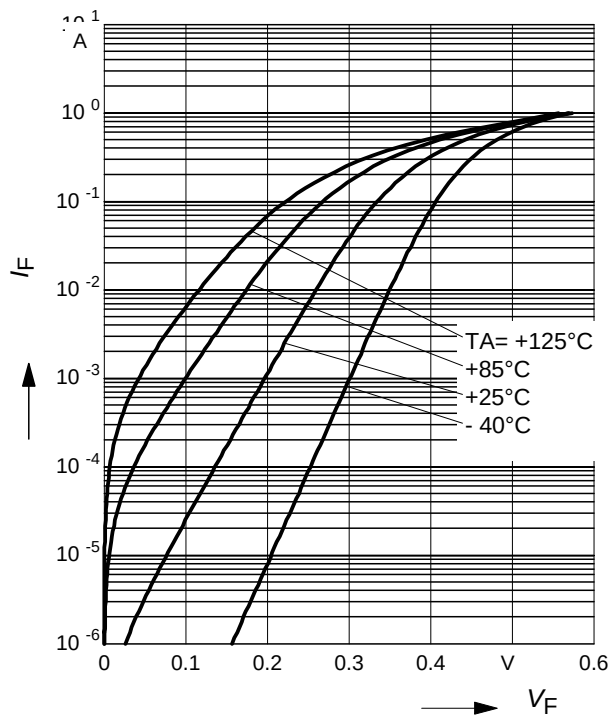
Forward Voltage $V_F = f(T_A)$

$I_F = \text{Parameter}$

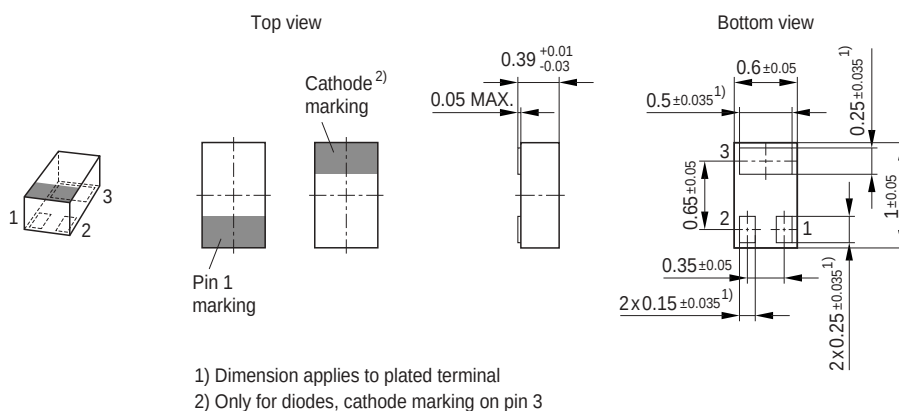


Forward current $I_F = f(V_F)$

T_A = Parameter

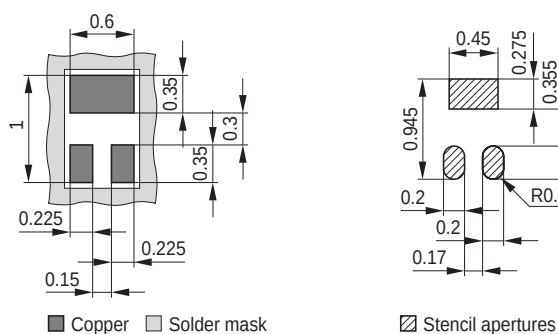


Package Outline

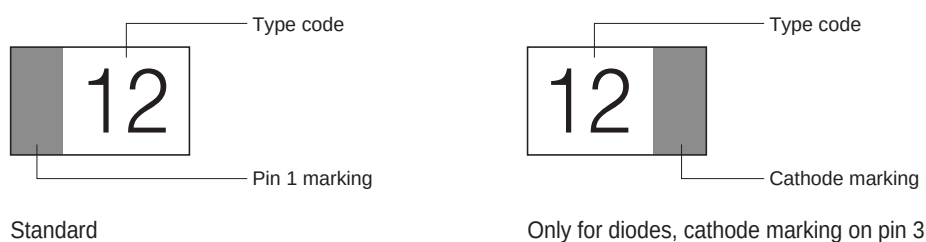


Foot Print

For board assembly information please refer to Infineon website "Packages"

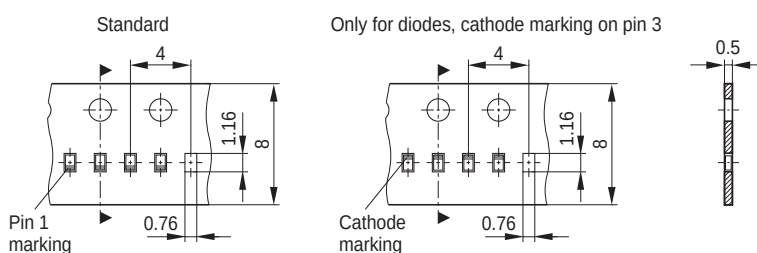


Marking Layout



Standard Packing

Reel ø180 mm = 15.000 Pieces/Reel



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