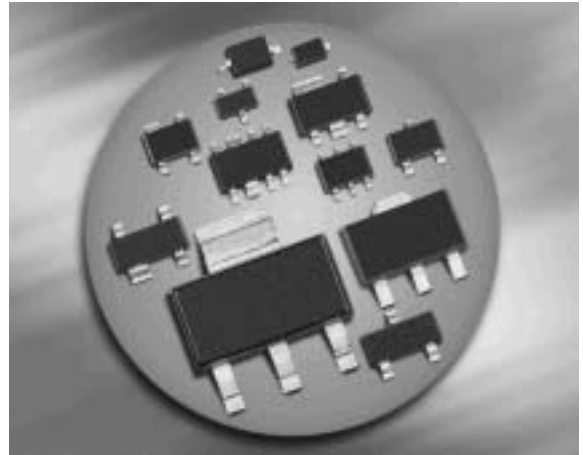
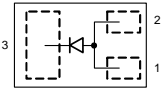


### Low VF Schottky Diode

- Forward current: 1 A
- Reverse voltage: 30 V
- Low forward voltage and smallest package form factor (1.0 x 0.6 x < 0.4 mm) for mobile phone battery charger application
- Pb-free (RoHS compliant) package<sup>1)</sup>
- 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 <sup>2)</sup>	$V_R$	30	V
Forward current <sup>2)3)</sup>	$I_F$	1	A
Repetitive peak forward current <sup>3)</sup> ( $t_p \leq 1 \text{ ms}$ , $D \leq 0.25$ )	$I_{FRM}$	3.5	
Non-repetitive peak surge forward current <sup>3)</sup> ( $t \leq 10 \text{ ms}$ )	$I_{FSM}$	5	
Junction temperature	$T_j$	150	$^\circ\text{C}$
Operating temperature range	$T_{Op}$	-55 ... 125	
Storage temperature	$T_{Stg}$	-65 ... 150	

<sup>1)</sup>Pb-containing package may be available upon special request

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

<sup>3)</sup>Only valid if pin 1 and 2 are connected in parallel

**Thermal Resistance**

Parameter	Symbol	Value	Unit
Junction - soldering point <sup>1)</sup>	$R_{thJS}$	$\leq 38$	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 <sup>2)</sup>	$I_R$	-	-	-	$\mu\text{A}$
$V_R = 5\text{ V}$		-	-	15	
$V_R = 10\text{ V}$		-	-	30	
$V_R = 30\text{ V}$		-	-	300	
Forward voltage <sup>2)</sup>	$V_F$	-	-	-	mV
$I_F = 100\text{ mA}$		-	340	390	
$I_F = 350\text{ mA}$		-	400	450	
$I_F = 1000\text{ mA}$		-	570	650	

**AC Characteristics**

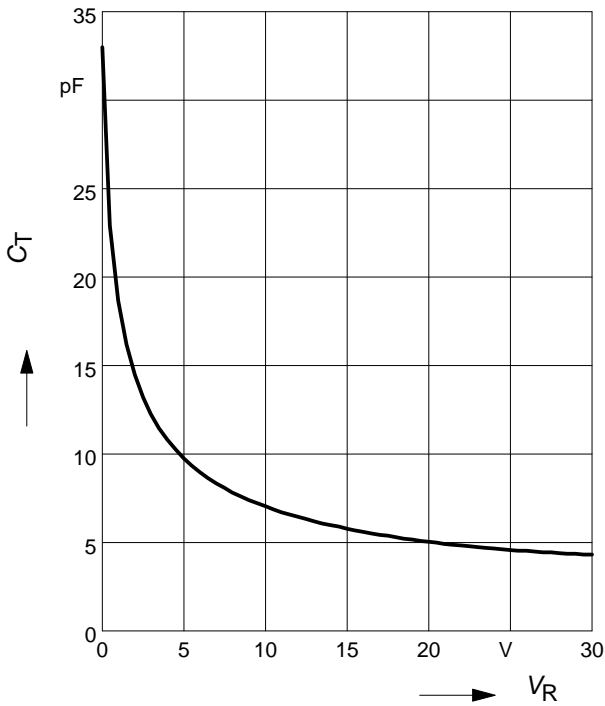
Diode capacitance	$C_T$	-	10	15	$\text{pF}$
$V_R = 5\text{ V}, f = 1\text{ MHz}$					

<sup>1)</sup>For calculation of  $R_{thJA}$  please refer to Application Note Thermal Resistance

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

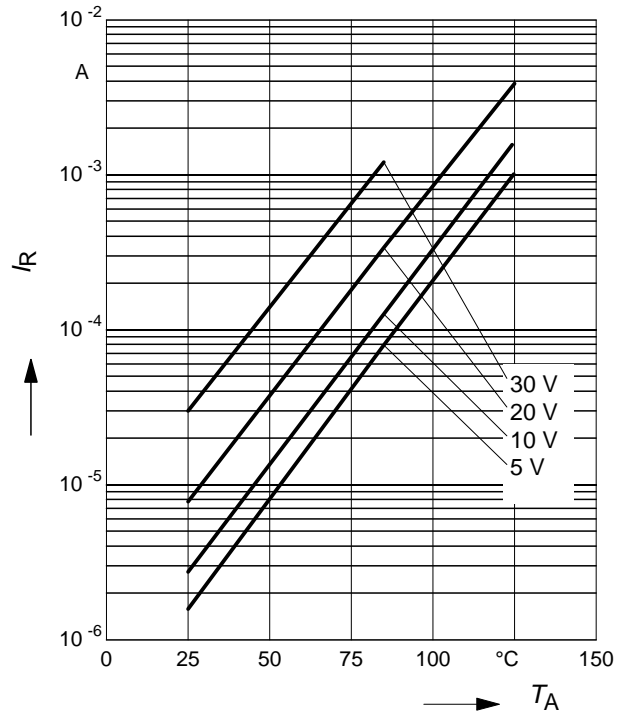
**Diode capacitance  $C_T = f(V_R)$**

$f = 1\text{MHz}$



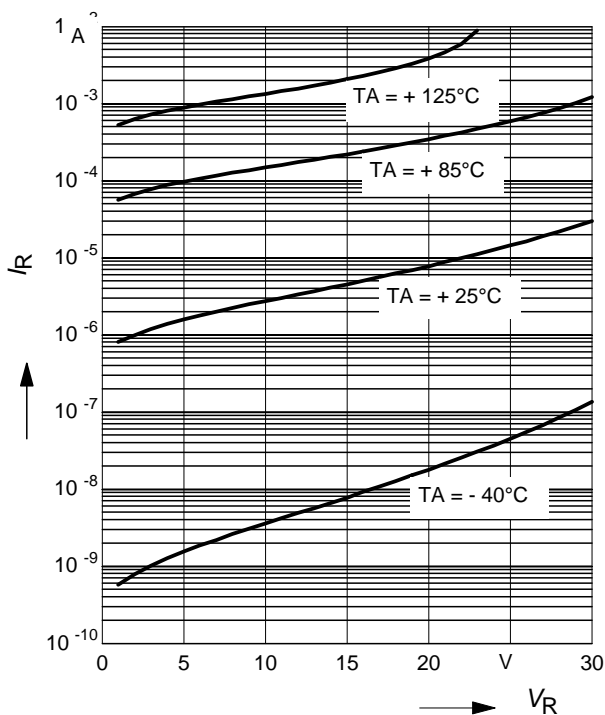
**Reverse current  $I_R = f(T_A)$**

$V_R = \text{Parameter}$



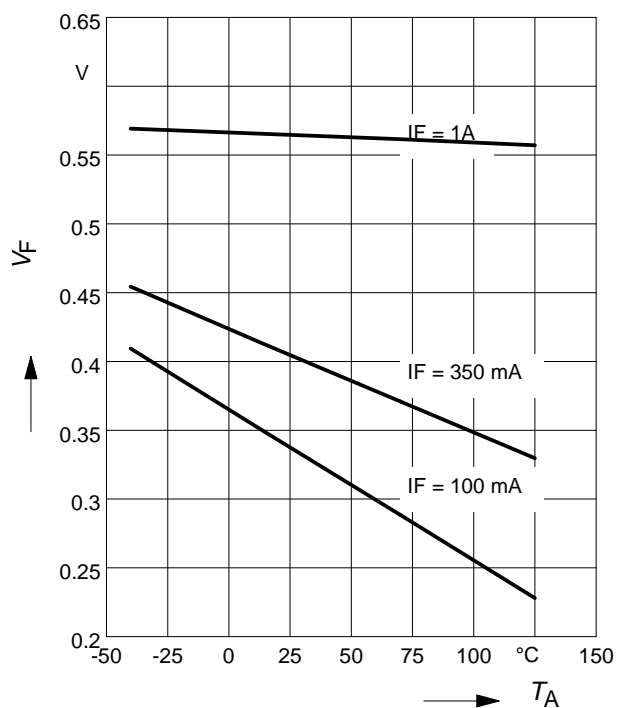
**Reverse current  $I_R = f(V_R)$**

$T_A = \text{Parameter}$



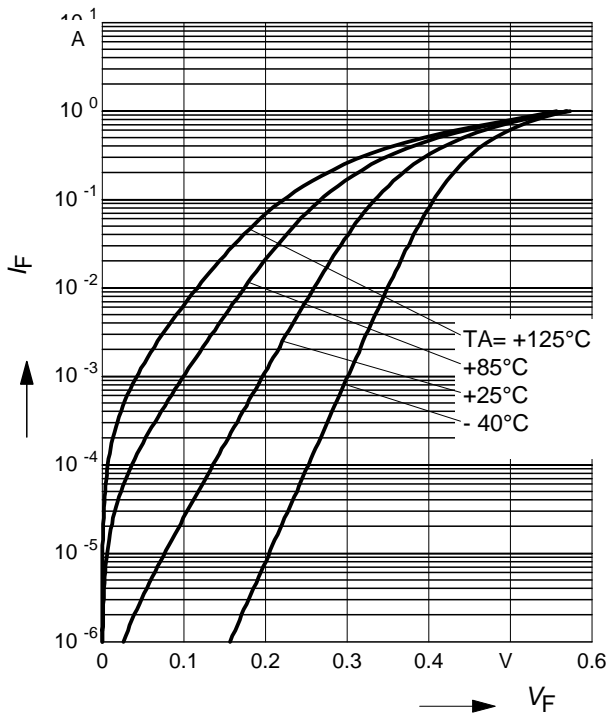
**Forward Voltage  $V_F = f(T_A)$**

$I_F = \text{Parameter}$

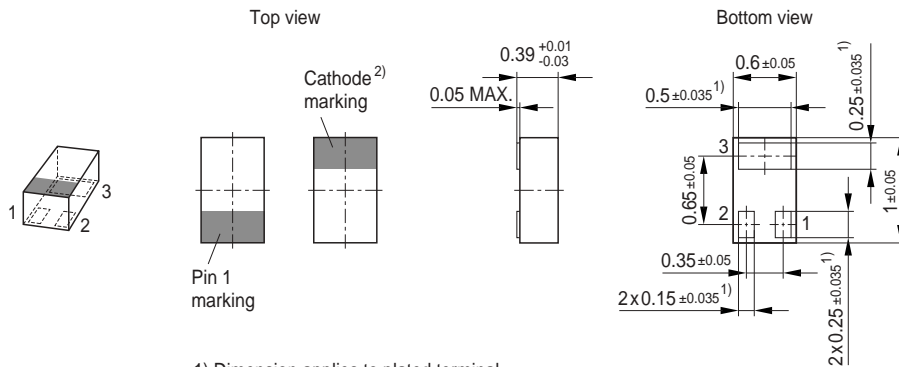


Forward current  $I_F = f(V_F)$

$T_A =$  Parameter



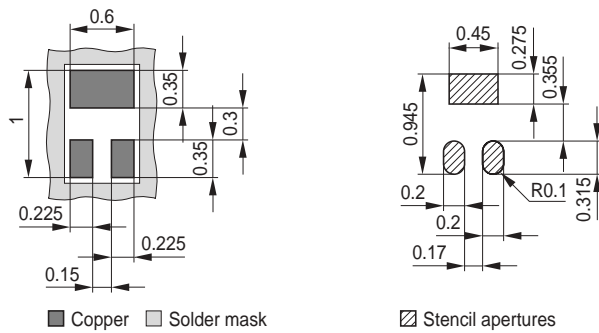
### Package Outline



- 1) Dimension applies to plated terminal
- 2) Only for diodes, cathode marking on pin 3

### Foot Print

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

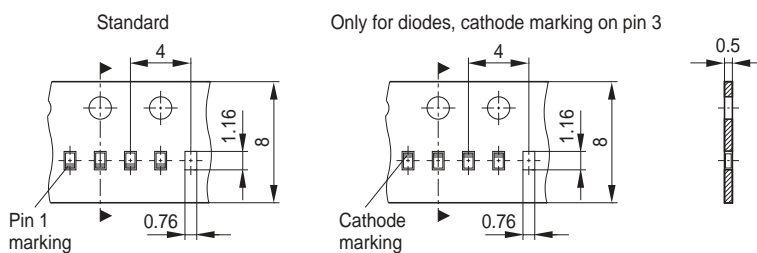


### Marking Layout



### Standard Packing

Reel ø180 mm = 15.000 Pieces/Reel



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