



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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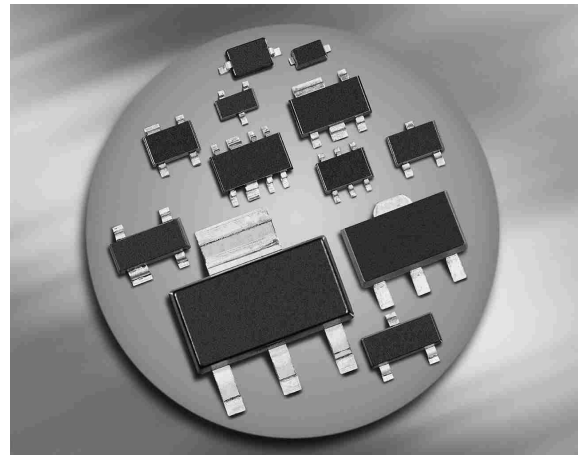
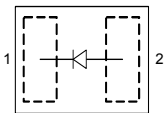
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Low VF Schottky Diode

- Reverse voltage: 30 V
- Forward current: 0.5 A
- 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


BAS3005S-02LRH


Type	Package	Configuration	Marking
BAS3005S-02LRH	TSLP-2-17	single	5A

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

Parameter	Symbol	Value	Unit
Diode reverse voltage ¹⁾	V_R	30	V
Forward current ¹⁾ , $T_S \leq 132\text{ °C}$	I_F	0.5	A
Non-repetitive peak surge forward current ($t \leq 10\text{ ms}$)	I_{FSM}	2	
Junction temperature	T_j	150	°C
Operating temperature range	T_{op}	-55 ... 150	
Storage temperature	T_{stg}	-65 ... 150	

Thermal Resistance

Junction - soldering point ²⁾	R_{thJS}	≤ 60	K/W
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¹ For $T_A > 25\text{ °C}$ the derating of V_R and I_F has to be considered.

²For calculation of R_{thJA} please refer to Application Note Thermal Resistance

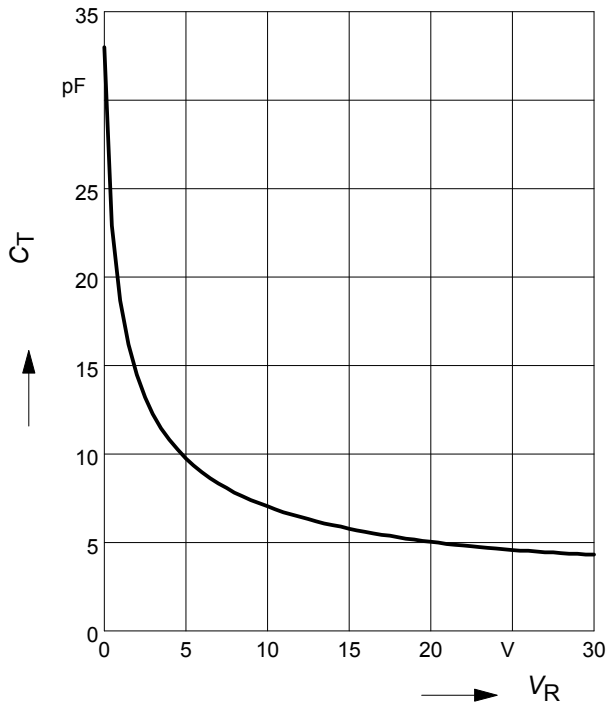
Electrical Characteristics at $T_A = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Values			Unit
		min.	typ.	max.	
DC Characteristics					
Reverse current ¹⁾ $V_R = 5\text{ V}$ $V_R = 30\text{ V}$	I_R	-	-	15 300	μA
Forward voltage ¹⁾ $I_F = 0.1\text{ mA}$ $I_F = 10\text{ mA}$ $I_F = 200\text{ mA}$ $I_F = 500\text{ mA}$	V_F	-	140 260 370 450	190 310 420 500	mV
AC Characteristics					
Diode capacitance $V_R = 5\text{ V}, f = 1\text{ MHz}$	C_T	-	10	15	pF

¹⁾Pulsed test: $t_p = 300\ \mu\text{s}; D = 0.01$

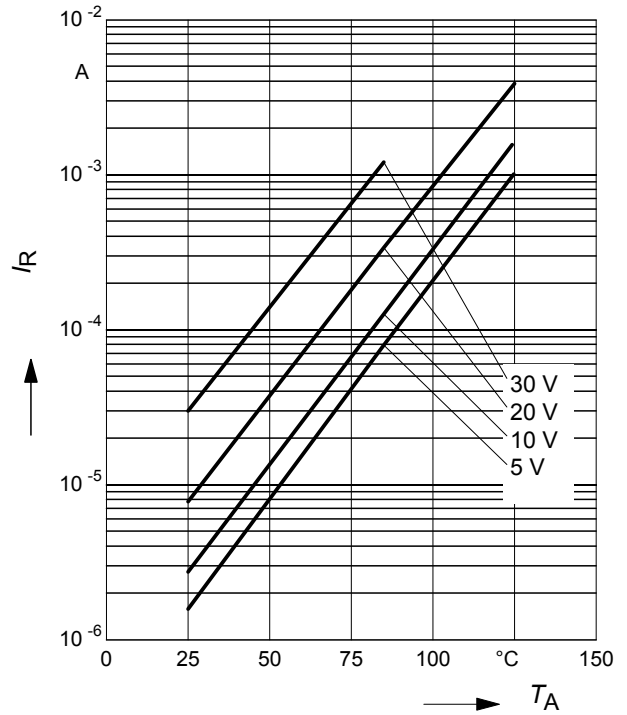
Diode capacitance $C_T = f(V_R)$

$f = 1\text{MHz}$



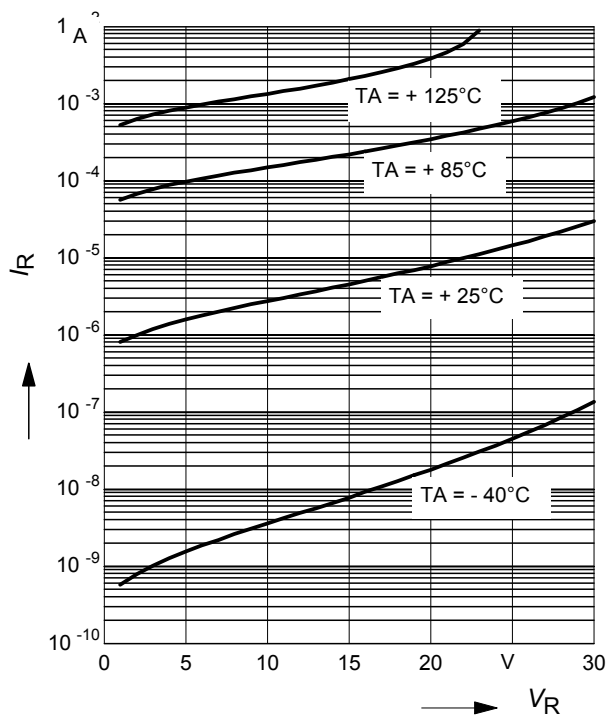
Reverse current $I_R = f(T_A)$

$V_R = \text{Parameter}$



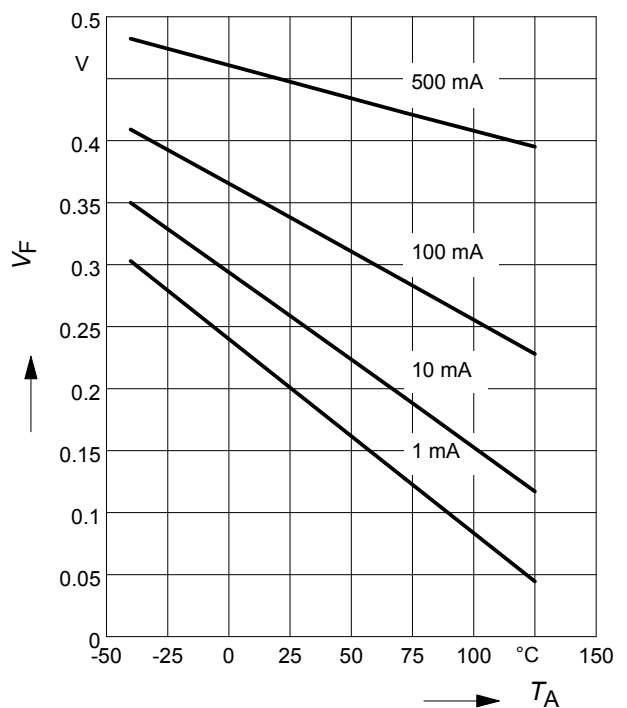
Reverse current $I_R = f(V_R)$

$T_A = \text{Parameter}$

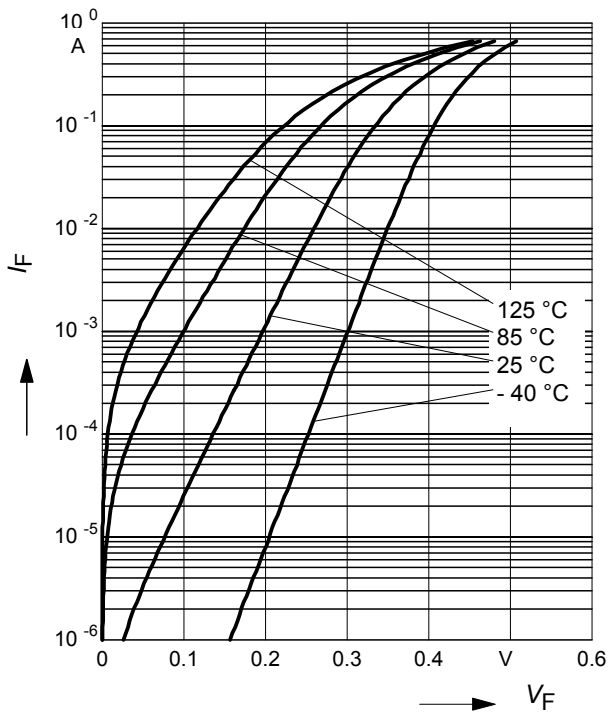


Forward Voltage $V_F = f(T_A)$

$I_F = \text{Parameter}$



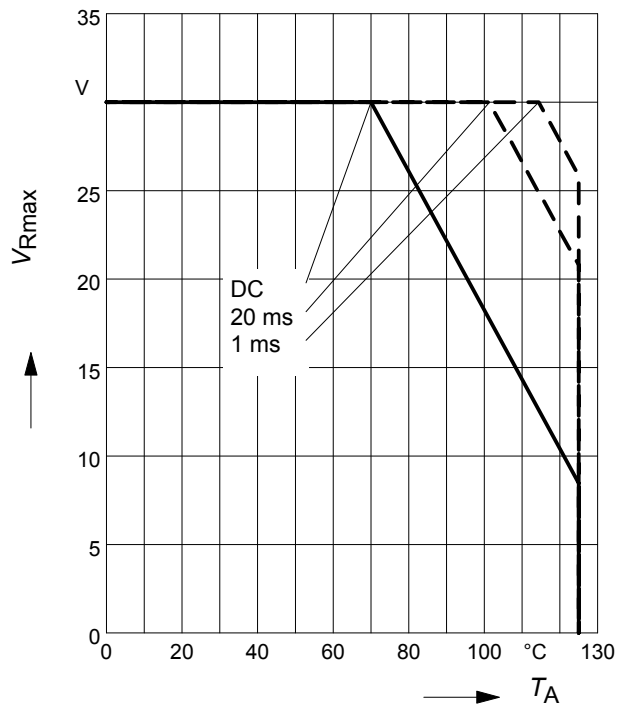
Forward current $I_F = f(V_F)$



Permissible Reverse voltage $V_R = f(T_A)$

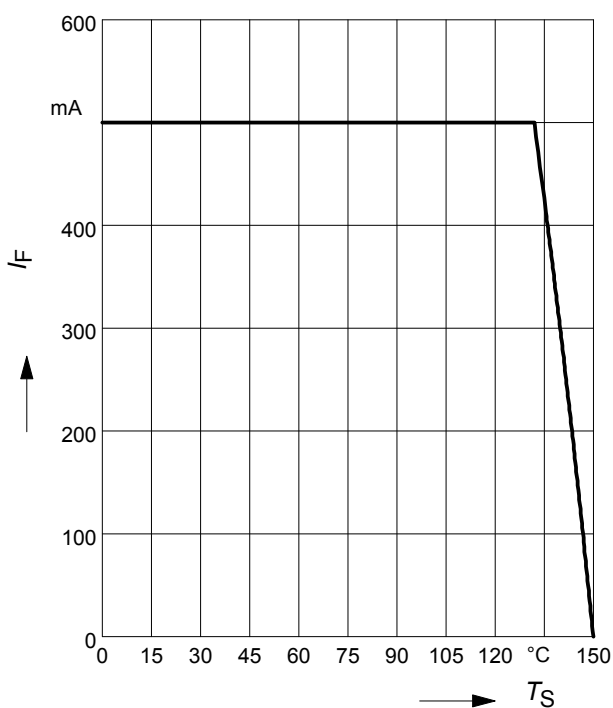
t_p = Parameter, Duty cycle < 0.01

Device mounted on PCB with $R_{th} = 160$ K/W

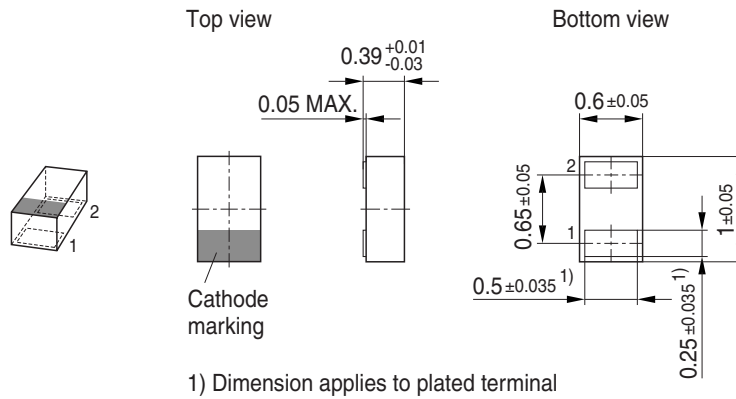


Forward current $I_F = f(T_S)$

BAS3005S-02LRH

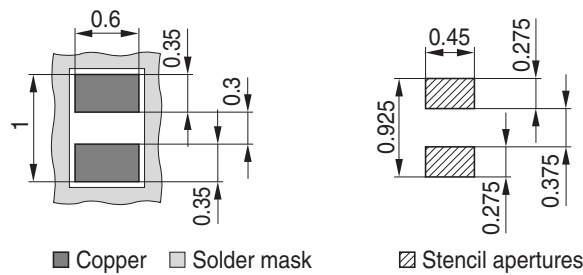


Package Outline

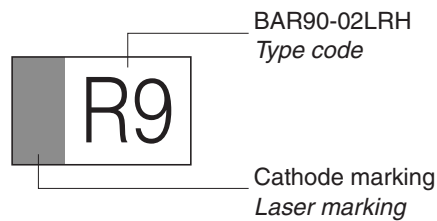


Foot Print

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

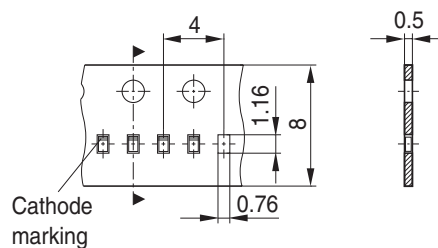


Marking Layout (Example)



Standard Packing

Reel \varnothing 180 mm = 15.000 Pieces/Reel
 Reel \varnothing 330 mm = 50.000 Pieces/Reel (optional)



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