

# BAS70\_BAS70-04\_BAS70-05\_BAS70-06

## Schottky Diodes

### Features

- General-purpose diode for high-speed switching
- Circuit protection
- Voltage clamping
- High-level detecting and mixing
- RoHS compliant package

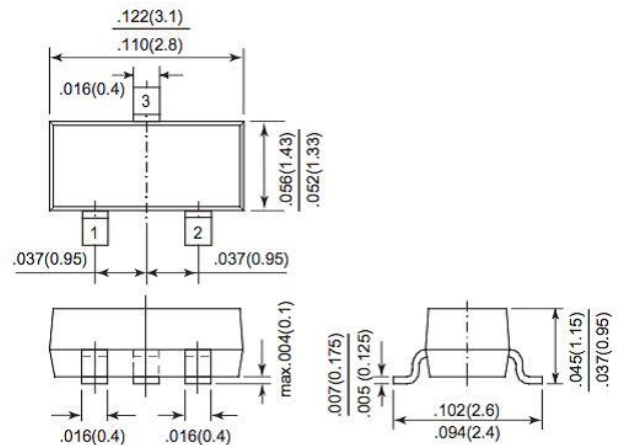
### Packing & Order Information

3,000/Reel

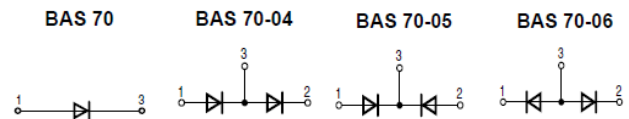


**RoHS  
COMPLIANT**

### SOT-23



### Graphic symbol



### ORDERING INFORMATION

Type	Marking	Pin Configuration			Package
BAS70	73s	1=A	2 n.c	3=C	SOT-23
BAS70-04	74s	1=A1	2 =C2	3=C1/A2	SOT-23
BAS70-05	75s	1=A1	2 =A2	3=C1/C2	SOT-23
BAS70-06	76s	1=C1	2 =C2	3=A1/A2	SOT-23

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

#### Maximum Ratings

Symbol	Parameter	Value	Unit
VR	Diode reverse voltage	70	V
IF	Forward current IF	70	mA
IFSM	Surge forward current, t ≤ 10ms	100	mA
Ptot	Total power dissipation BAS 70, TS ≤ 66°C	250	mW
Ptot	BAS 70-04, BAS 70-05, BAS 70-06, TS ≤ 40°C	250	mW
TJ	Junction temperature	150	°C
TOP	Operating temperature range	-55 to +150	°C
TSTG	Storage temperature	-55 to +150	°C

## BAS70\_BAS70-04\_BAS70-05\_BAS70-06

### Schottky Diodes

Maximum Ratings			
Symbol	Parameter	Value	Unit
RthJA	Junction - ambient BAS 70	≤405	K/W
RthJA	Junction - ambient BAS 70-04	≤575	K/W
RthJS	Junction - soldering point BAS 70	≤335	K/W
RthJS	Junction - soldering point BAS 70-04	≤435	K/W

1) Package mounted on epoxy pcb 40mm x 40mm x 1.5mm / 6cm<sup>2</sup> Cu

Electrical Characteristics at TA = 25°C, unless otherwise specified.

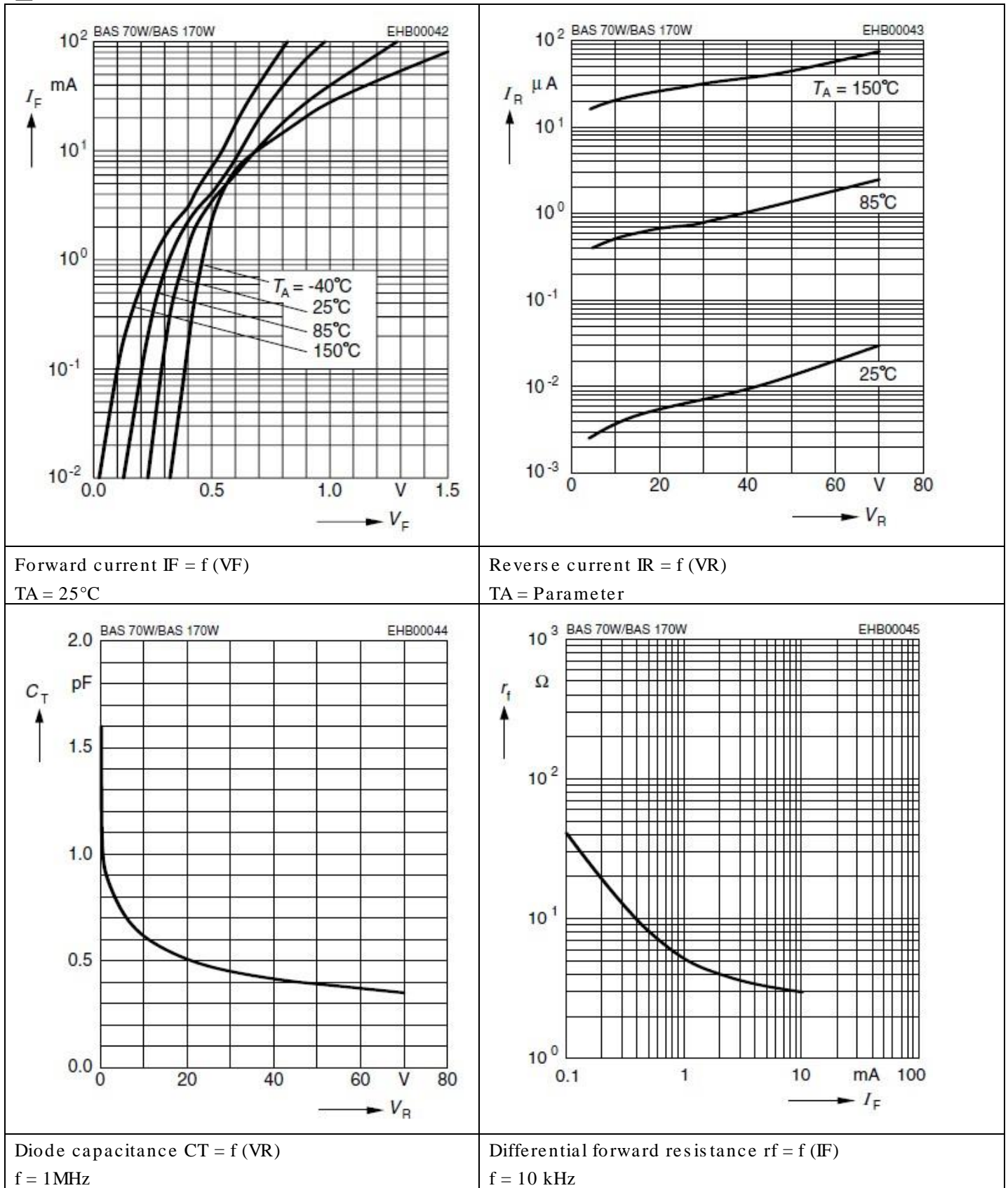
DC characteristics					
Symbol	Parameter	MIN	TYP	MAX	UNIT
V(BR)	Breakdown voltage I(BR) = 10 μA	70			V
IR	Reverse current μA VR = 50 V VR = 70 V			0.1 1.0	μA
VF	Forward voltage IF = 1 mA IF = 10 mA IF = 15 mA		375 705 880	410 750 1000	mV

AC characteristics					
Symbol	Parameter	MIN	TYP	MAX	UNIT
CT	Diode capacitance CT - pF VR = 0 V, f = 1 MHz		1.6	2	pF
τ	Charge carrier life time ps IF = 25 mA			100	ps
RF	Differential forward resistance IF = 10 mA, f = 10 kHz		30		Ω

## BAS70\_BAS70-04\_BAS70-05\_BAS70-06

### Schottky Diodes

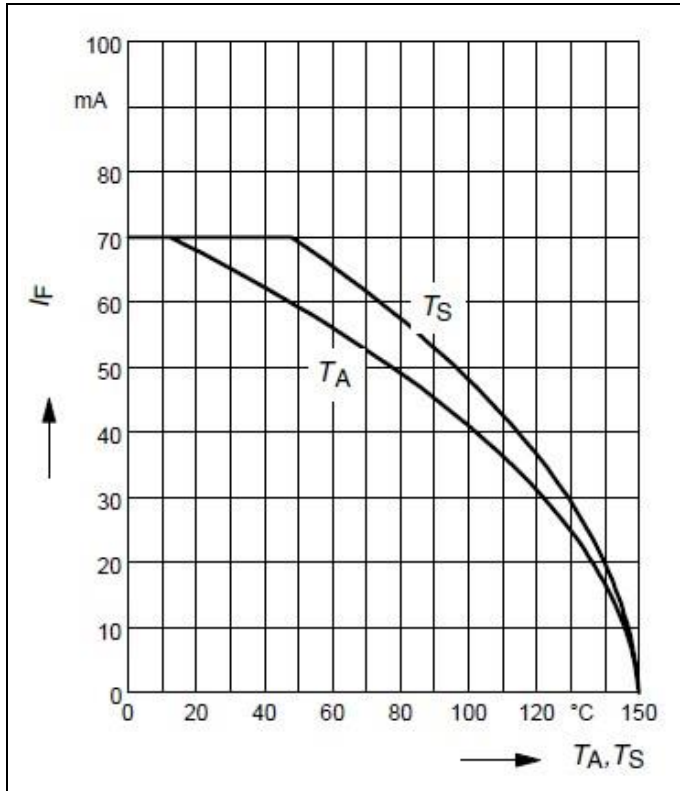
#### ■ RATINGS AND CHARACTERISTIC CURVES



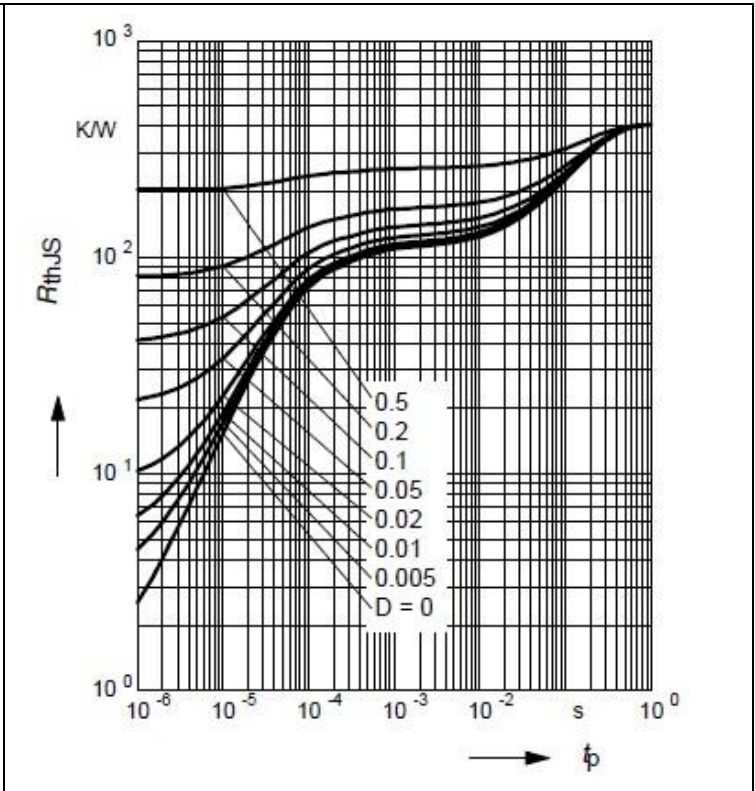
## BAS70\_BAS70-04\_BAS70-05\_BAS70-06

### Schottky Diodes

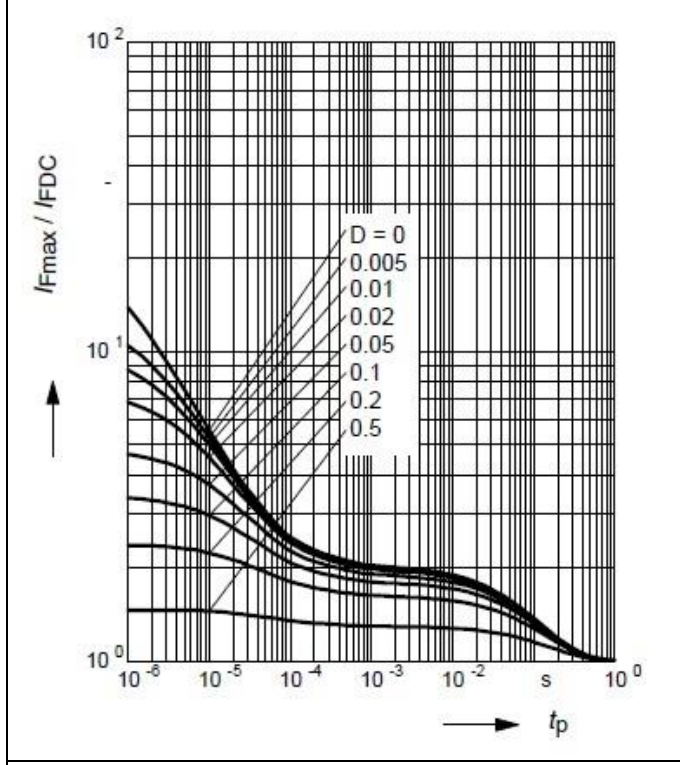
#### ■ RATINGS AND CHARACTERISTIC CURVES



Forward current  $I_F = f(T_A, T_S)$   
 \*Package mounted on epoxy



Permissible pulse load  $R_{thJS} = f(t_p)$



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

## BAS70\_BAS70-04\_BAS70-05\_BAS70-06

### Schottky Diodes

#### Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE

WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Bruckewell Technology Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Bruckewell"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Bruckewell makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Bruckewell disclaims

- (i) Any and all liability arising out of the application or use of any product.
- (ii) Any and all liability, including without limitation special, consequential or incidental damages.
- (iii) Any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Bruckewell's knowledge of typical requirements that are often placed on Bruckewell products in generic applications.

Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time.

Product specifications do not expand or otherwise modify Bruckewell's terms and conditions of purchase, including but not limited to the warranty expressed therein.