

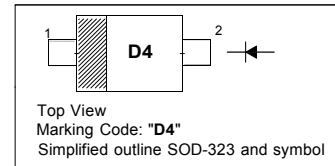
# BAS416 Low-leakage Diode

## FEATURES

- Low leakage current: typ. 3 nA
- Switching time: typ. 0.8  $\mu$ s
- Continuous reverse voltage: min. 75 V
- Repetitive peak reverse voltage: min. 85 V
- Repetitive peak forward current: max. 500 mA.

## PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



## Absolute Maximum Ratings ( $T_a = 25^\circ\text{C}$ )

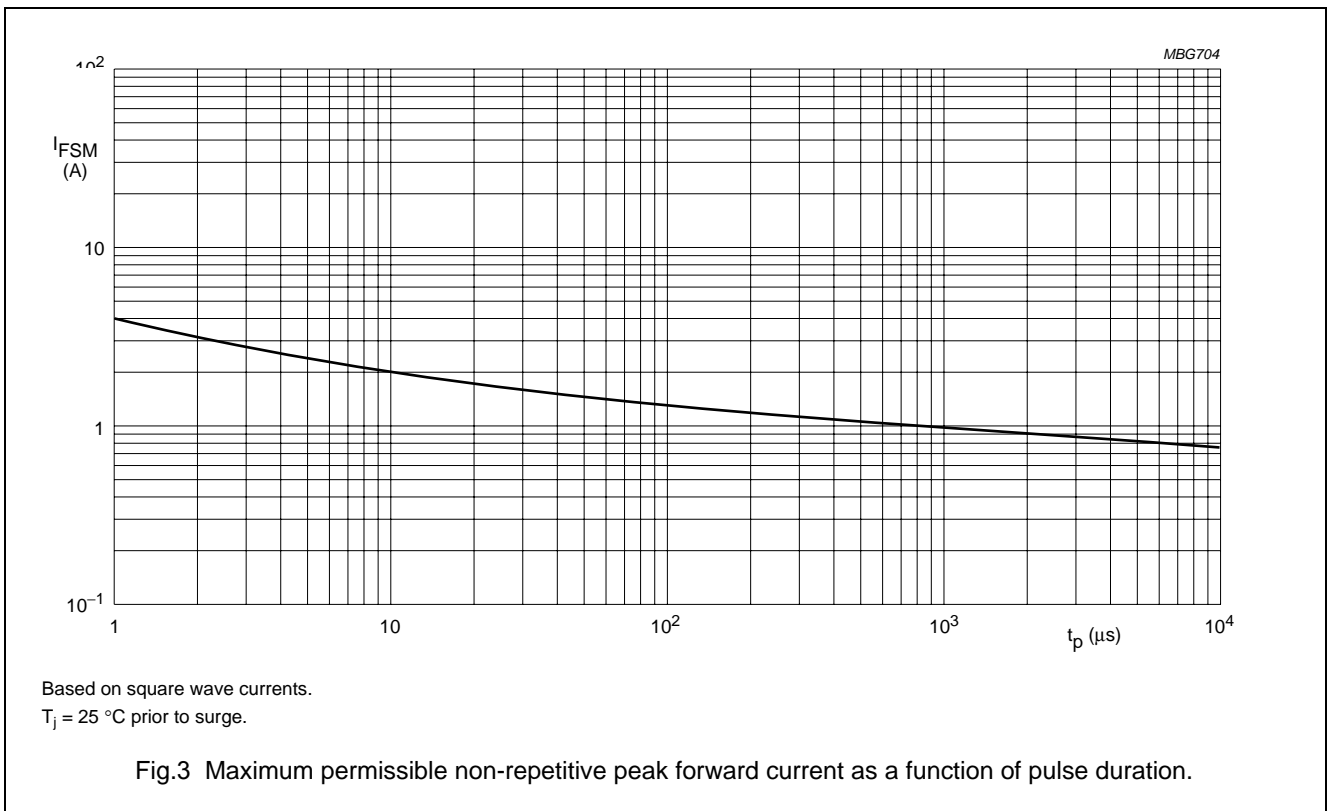
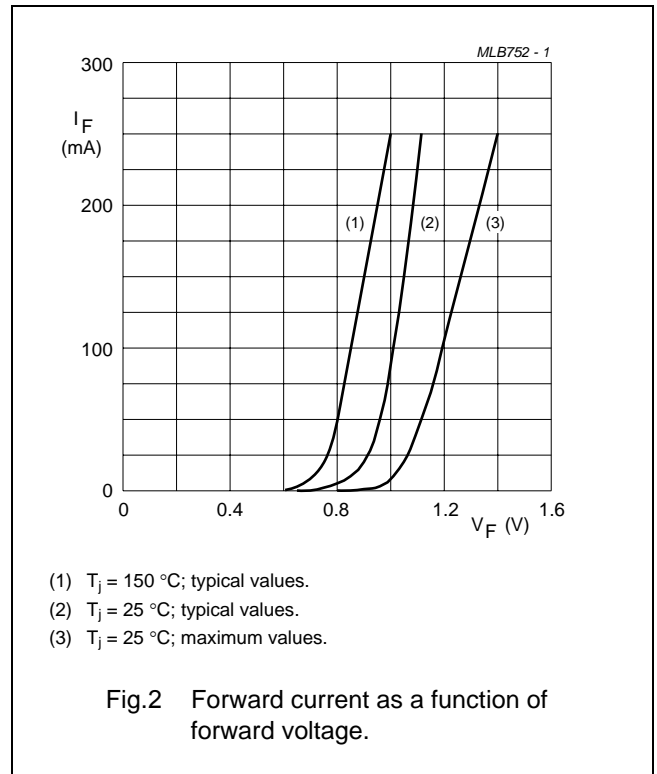
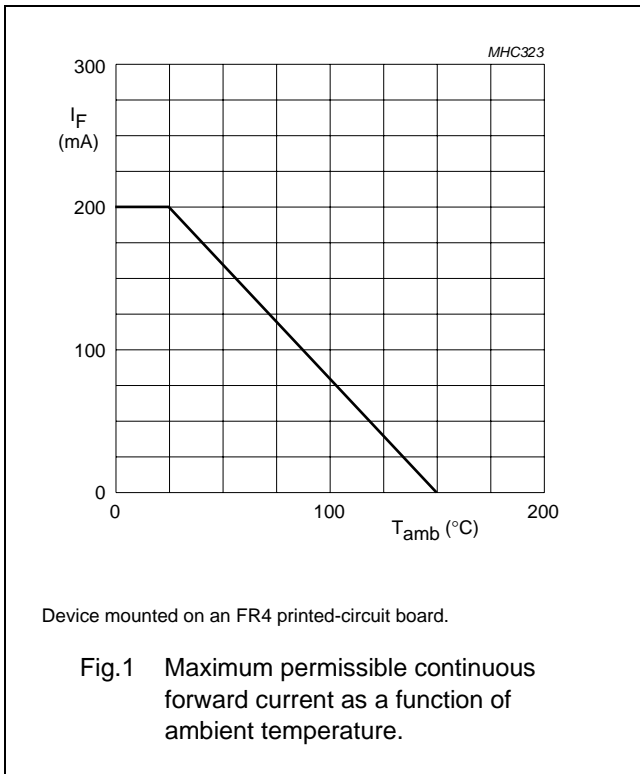
Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	85	V
Reverse Voltage	$V_R$	75	V
Continuous Forward Current	$I_F$	200	mA
Repetitive Peak Forward Current	$I_{FRM}$	500	mA
Non-repetitive Peak Forward Surge Current	$I_{FSM}$	0.5 1 4	A
		at $t = 1$ s	
		at $t = 1$ ms	
		at $t = 1$ $\mu$ s	
Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$

## CHARACTERISTICS

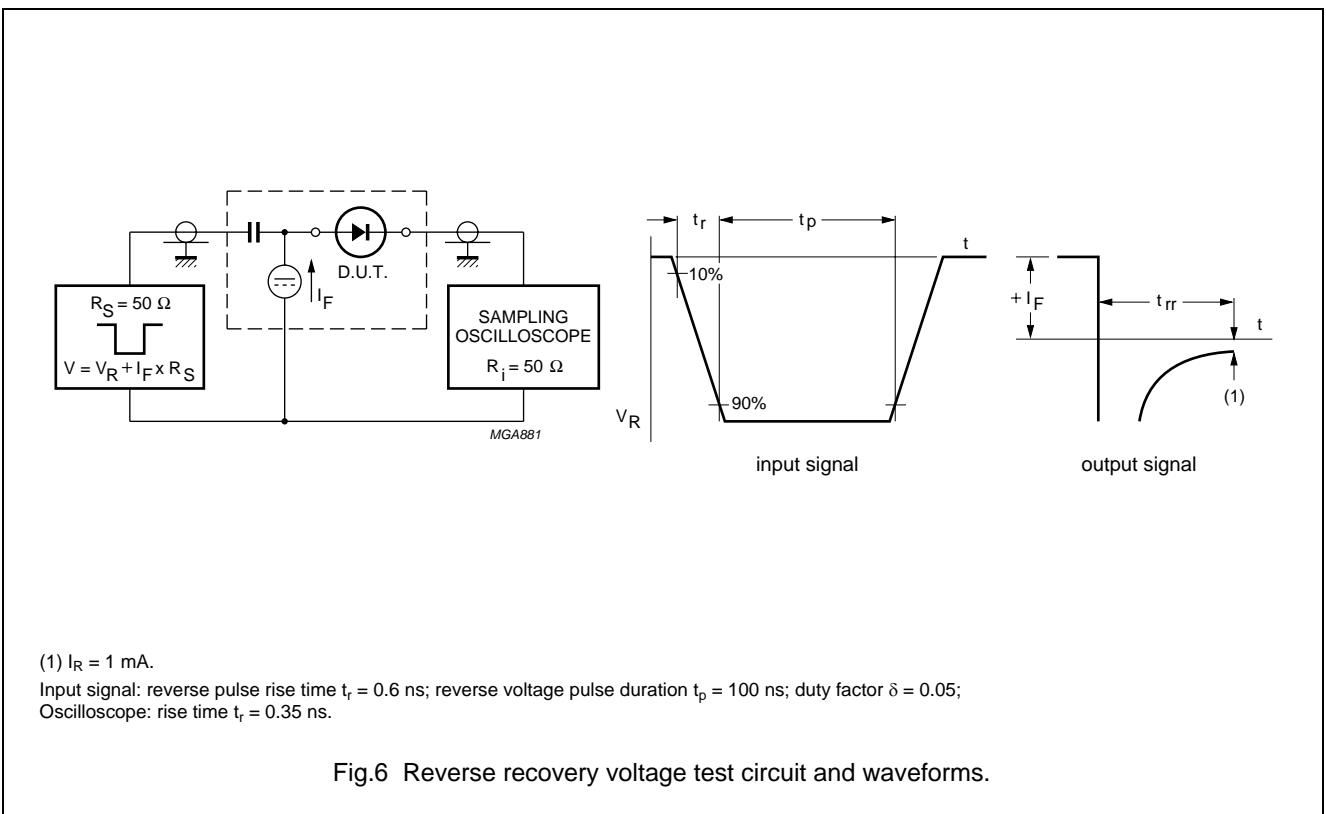
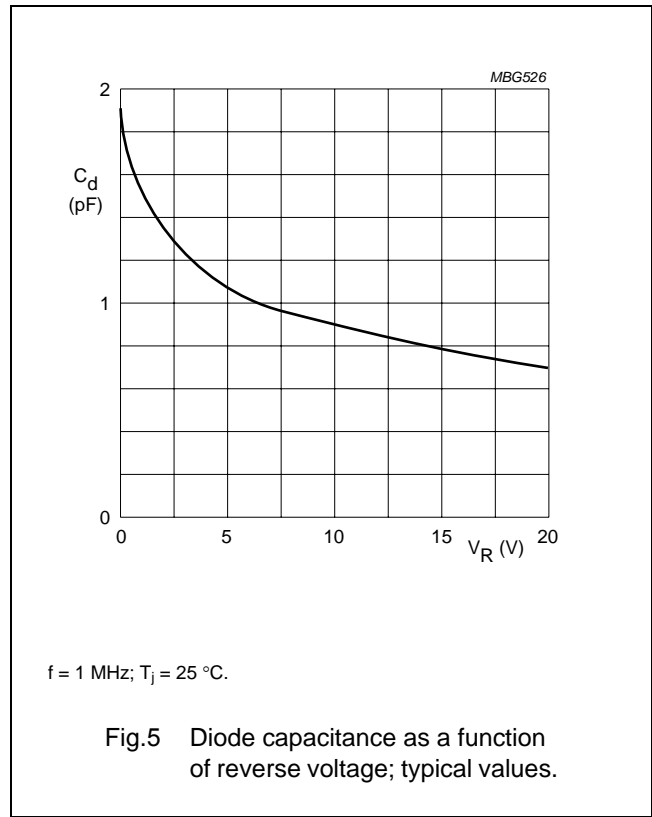
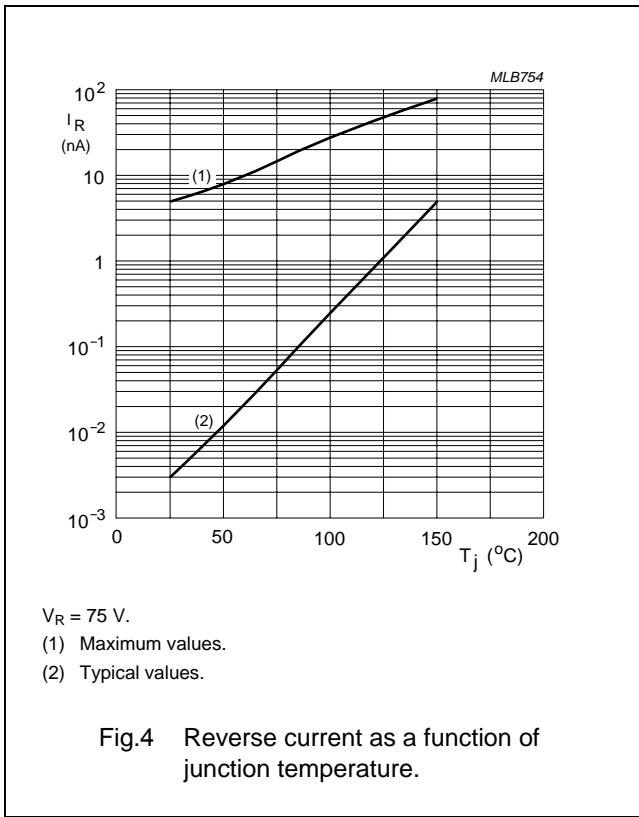
$T_{amb} = 25^\circ\text{C}$  unless otherwise specified.

SYMBOL	PARAMETER	CONDITIONS	TYP.	MAX.	UNIT
$V_F$	forward voltage	$I_F = 1$ mA	–	0.9	V
		$I_F = 10$ mA	–	1	V
		$I_F = 50$ mA	–	1.1	V
		$I_F = 150$ mA	–	1.25	V
$I_R$	reverse current	$V_R = 75$ V	3	5	nA
		$V_R = 75$ V; $T_j = 150^\circ\text{C}$	3	80	nA
$C_d$	diode capacitance	$V_R = 0$ ; $f = 1$ MHz; see Fig.6	2	–	pF
$t_{rr}$	reverse recovery time	when switched from $I_F = 10$ mA to $I_R = 10$ mA; $R_L = 100 \Omega$ ; measured at $I_R = 1$ mA	0.8	3	$\mu$ s

## Typical Characteristics



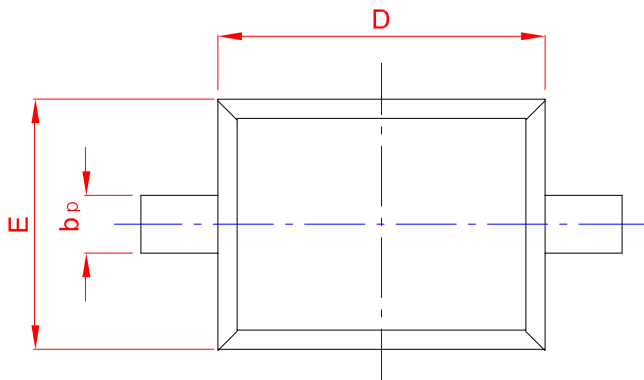
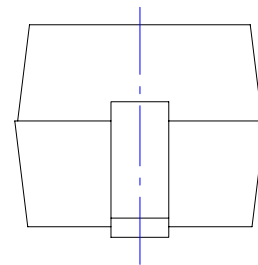
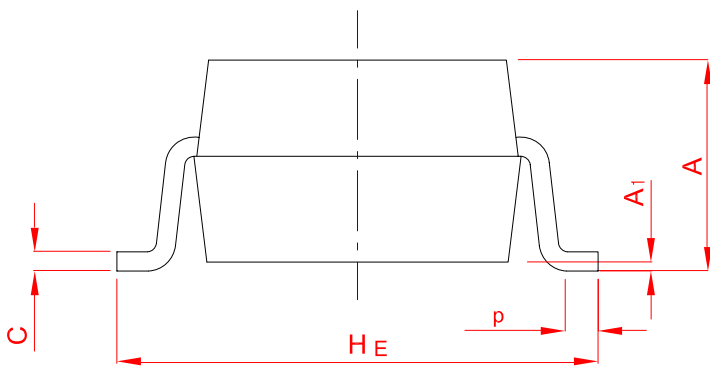
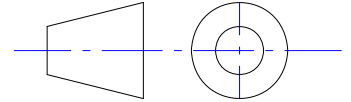
## Typical Characteristics



# PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



UNIT	A	bp	C	D	E	HE	A1	Lp
mm	1.20	0.40	0.15	1.80	1.35	2.80	0.10	0.50
	0.90	0.25	0.10	1.60	1.15	2.30	0.01	0.20