



# FUKUCOM COMPANY LTD.

## 福靈有限公司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.  
TEL: 852-2790 0314 FAX: 852-2790 0206

### BAS316

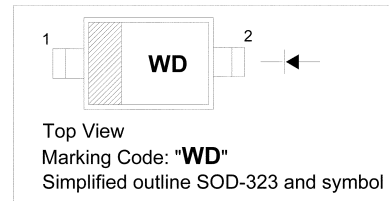
#### High-speed diode

##### Features

- Very small plastic SMD package
- High switching speed: max. 4 ns
- Continuous reverse voltage : max. 100V
- Repetitive peak reverse voltage : max. 100V
- Repetitive peak forward current : max. 500mA

##### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



##### Applications:

High-speed switching in e.g. surface mounted circuits.

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

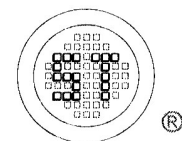
Parameter	Test	Symbol	Value	Unit
Continuous Reverse Voltage	-	$V_R$	100	V
Repetitive Peak Reverse Voltage	-	$V_{RRM}$	100	V
Repetitive Peak Forward Current	-	$I_{FRM}$	500	mA
Continuous Forward Current	$T_s=90^\circ\text{C}$ , see note 1.	$I_F$	250	mA
Non-Repetitive Peak Forward Current	$t=1\mu\text{s}$	$I_{FSM}$	4	A
	$t=1\text{ms}$		1	A
	$t=1\text{s}$		0.5	A
Total Power Dissipation	$T_s=90^\circ\text{C}$ , see note 1.	$P_{tot}$	400	mW
Junction Temperature	-	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	-	$T_s$	-65 ... +150	$^\circ\text{C}$

##### Maximum Thermal Resistance ( $T_j = 25^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Thermal Resistance from Junction to Soldering Point	$R_{th(j-s)}$	150	K/W

Note: 1.  $T_s$  is the temperature at the soldering point of the cathode tab.

2. Soldering point of the cathode tab.



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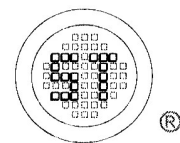
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Characteristics at  $T_J = 25^\circ\text{C}$

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Forward Voltage	$I_F = 1\text{mA}$	$V_F$	-	-	715	mV
	$I_F = 10\text{mA}$	$V_F$	-	-	855	mV
	$I_F = 50\text{mA}$	$V_F$	-	-	1	V
	$I_F = 150\text{mA}$	$V_F$	-	-	1.25	V
Reverse Current	$V_R = 25\text{V}$	$I_R$	-	-	30	nA
	$V_R = 25\text{V}, T_J = 150^\circ\text{C}$	$I_R$	-	-	30	$\mu\text{A}$
	$V_R = 75\text{V}$	$I_R$	-	-	1	$\mu\text{A}$
	$V_R = 75\text{V}, T_J = 150^\circ\text{C}$	$I_R$	-	-	50	$\mu\text{A}$
Diode Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$	$C_{\text{tot}}$	-	-	1.5	pF
Forward Recovery Voltage	$I_F = 10\text{mA}, t_f = 20\text{ ns}$	$V_{\text{fr}}$	-	-	1.75	V
Reverse Recovery Time	$I_F = 10\text{mA}$ to $I_R = 10\text{mA}$ , Measured at $I_R = 1\text{mA}$ , $R_L = 100\Omega$	$t_{\text{rr}}$	-	-	4	ns



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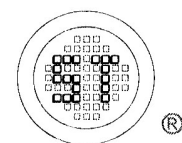
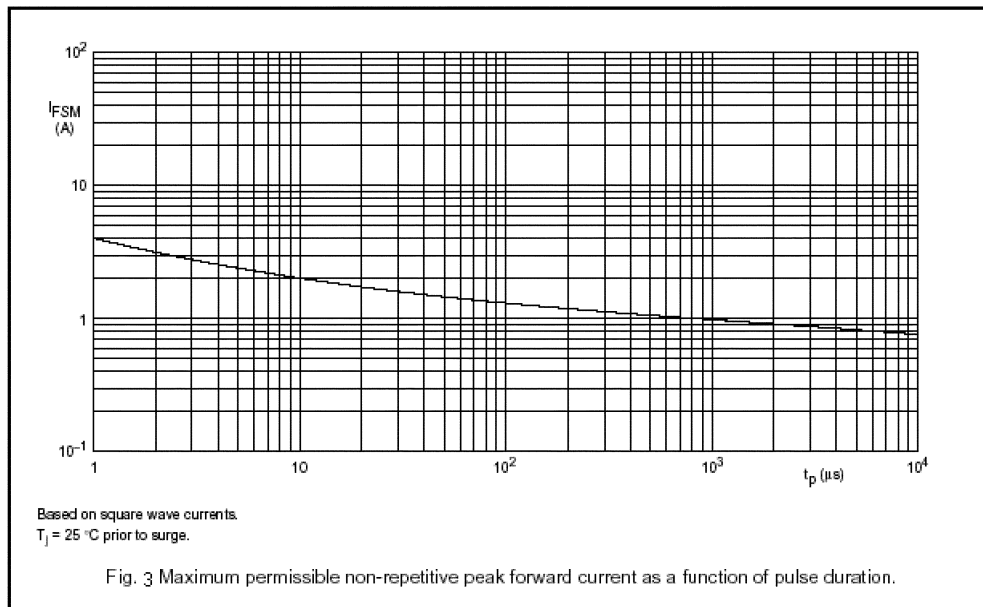
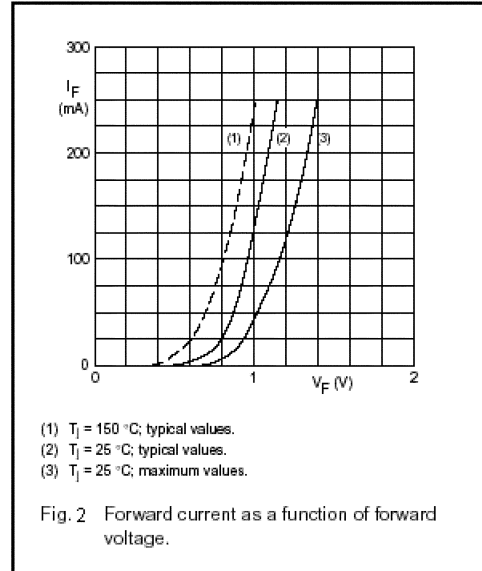
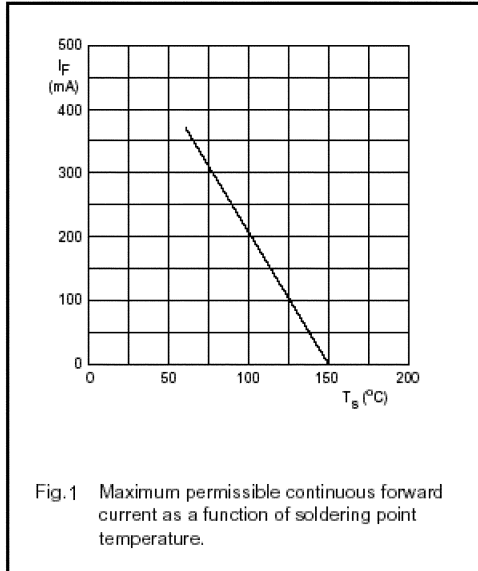
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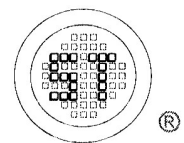
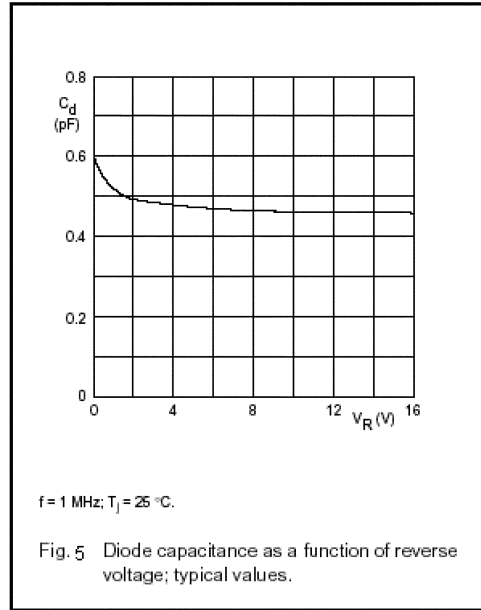
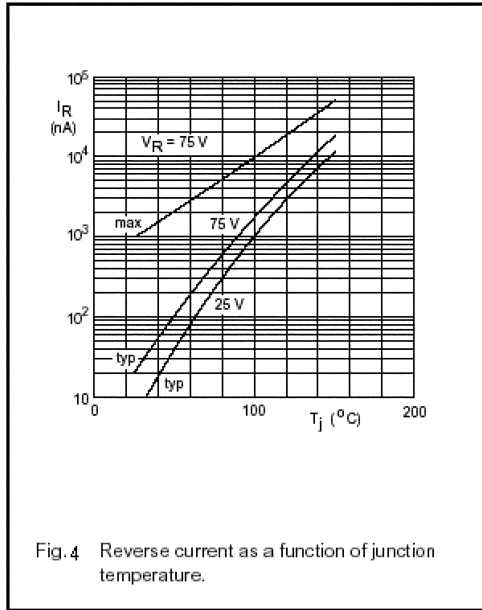
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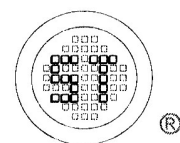
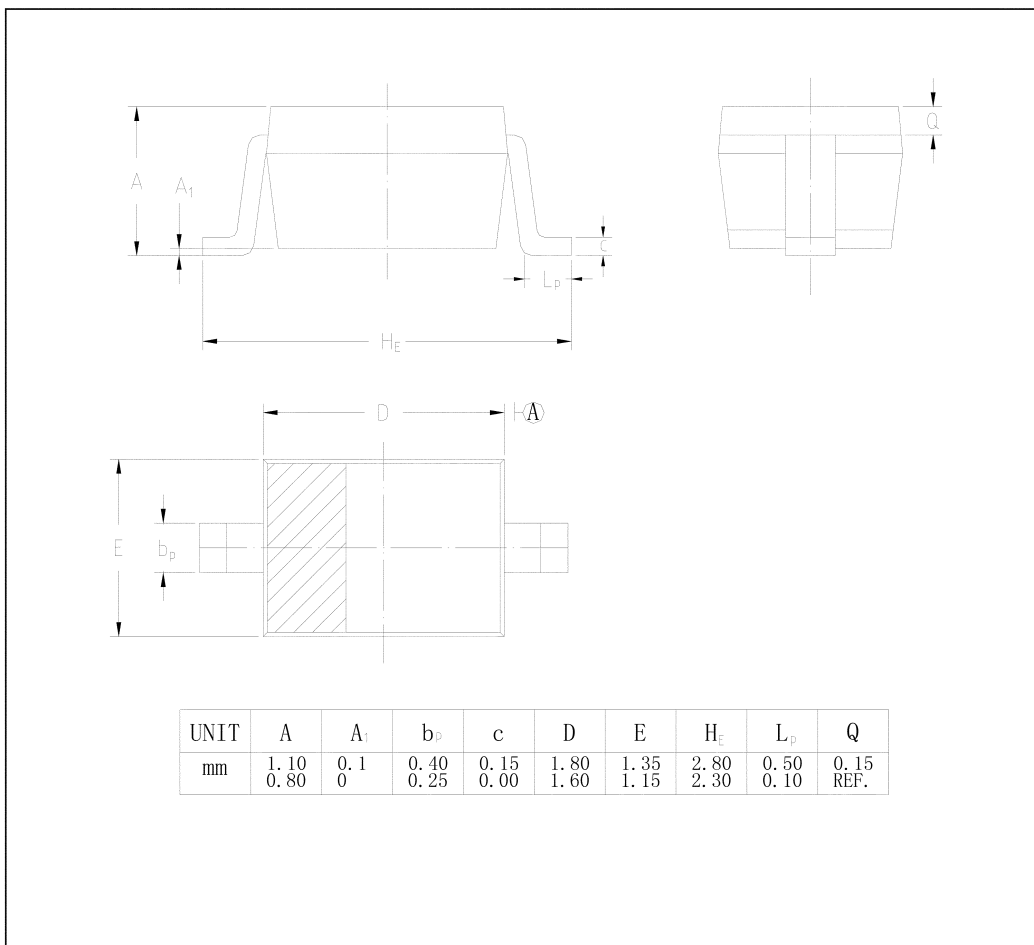
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### PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323



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