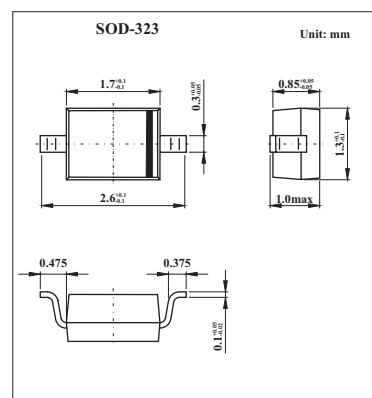


SILICON SWITCHING DIODE

BAS140WS

■ Features

- General purpose diodes for high-speed switching
- Circuit protection
- Voltage clamping
- High-level detecting and mixing



■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Value	Unit
Reverse voltage	V_R	40	V
Forward current	I_F	120	mA
Surge forward current $t \leq 1.0 \mu\text{s}$	I_{FSM}	200	mA
Total power dissipation $T_s \leq 113^\circ\text{C}$	P_{tot}	250	mW
Operating temperature range	T_{op}	-55 to +125	$^\circ\text{C}$
Storage Temperature range	T_{stg}	-65 to +150	$^\circ\text{C}$
Junction ambient ⁽¹⁾	R_{thJA}	≤ 260	K/W
Junction- soldering point	R_{thJS}	≤ 150	K/W

Note:

1.Package mounted on an epoxy pcb 40 mm $\times$ 40 mm $\times$ 15 mm/1cm² Cu.

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Min	Typ	Max	Unit
Breakdown voltage $I_{(BR)} = 10 \mu\text{A}$	$V_{(BR)}$	40			V
Forward voltage	V_F				mV
$I_F = 1 \text{ mA}$		250	310	380	
$I_F = 10 \text{ mA}$		350	450	500	
$I_F = 15 \text{ mA}$		600	720	1000	
Reverse current	I_R				μA
$V_R = 30 \text{ V}$				1	
$V_R = 40 \text{ V}$				10	
Diode capacitance $V_R = 0; f = 1 \text{ MHz}$	C_T		3	5	pF
Differential forward resistance $I_F = 10 \text{ mA}, f = 10 \text{ KHz}$	R_F		10		Ω
Series inductance	L_s		2		nH

■ Marking

Marking	4
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