

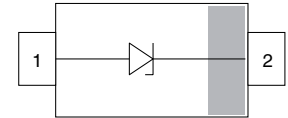
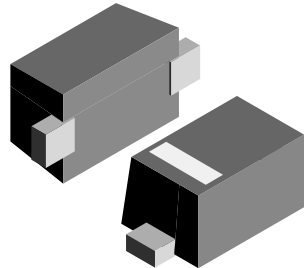
## Small Signal Schottky Diode

### Features

- This diode features very low turn-on voltage and fast switching.
- This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharges.
- Space saving SOD-523 package
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC



**RoHS**  
COMPLIANT



18554

### Mechanical Data

**Case:** SOD-523

**Molding Compound Flammability Rating:**

UL 94 V-0

**Terminals:** High temperature soldering guaranteed:  
260 °C/10 s at terminals

**Weight:** approx. 1.6 mg

**Packaging Codes/Options:**

GS18 / 10 k per 13" reel (8 mm tape), 10 k/box

GS08 / 3 k per 7" reel (8 mm tape), 15 k/box

### Parts Table

Part	Ordering code	Marking	Remarks
BAS40-02V	BAS40-02V-GS18 or BAS40-02V-GS08	W	Tape and Reel

### Absolute Maximum Ratings

$T_{amb} = 25\text{ °C}$ , unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Repetitive peak reverse voltage		$V_{RRM}$	40	V
Forward continuous current		$I_F$	200	mA
Surge forward current	$t_p < 1\text{ s}$	$I_{FSM}$	600	mA
Power dissipation		$P_{tot}$	200	mW

### Thermal Characteristics

$T_{amb} = 25\text{ °C}$ , unless otherwise specified

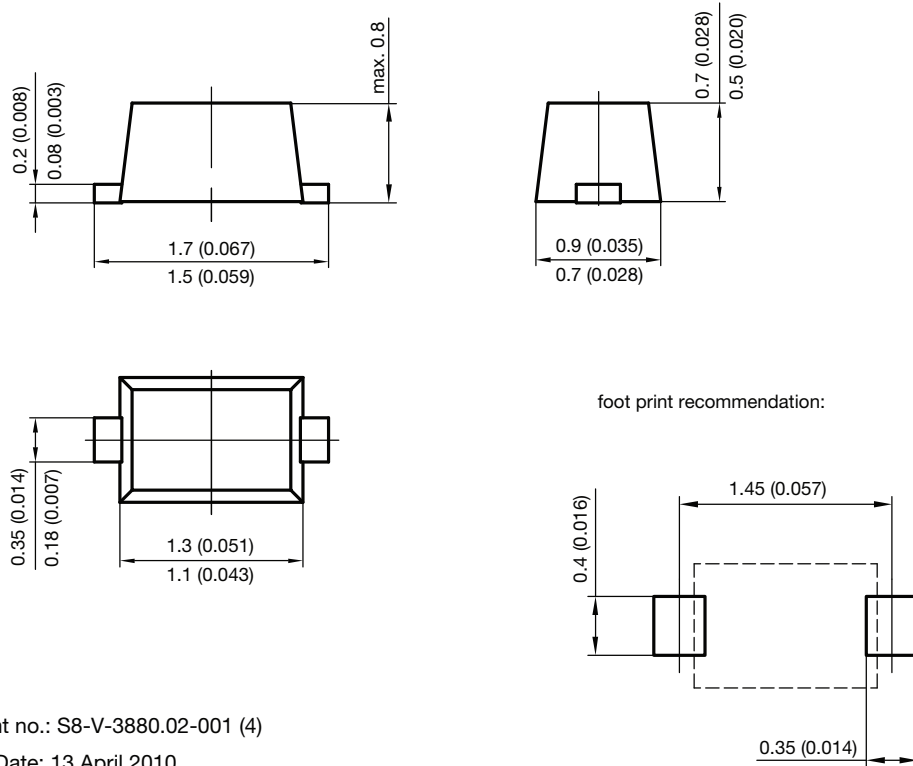
Parameter	Test condition	Symbol	Value	Unit
Junction soldering point		$R_{thJS}$	100	K/W
Junction temperature		$T_j$	125	°C
Storage temperature range		$T_{stg}$	- 55 to +150	°C

## Electrical Characteristics

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

Parameter	Test condition	Symbol	Min	Typ.	Max	Unit
Reverse breakdown voltage	$I_R = 10\text{ }\mu\text{A}$ (pulsed)	$V_{(BR)}$	40			V
Leakage current	Pulse test $V_R = 30\text{ V}$ , $t_p < 300\text{ }\mu\text{s}$	$I_R$		20	100	nA
Forward voltage	Pulse test $t_p < 300\text{ }\mu\text{s}$ , $I_F = 1\text{ mA}$	$V_F$			380	mV
	Pulse test $t_p < 300\text{ }\mu\text{s}$ , $I_F = 40\text{ mA}$	$V_F$			1000	mV
Diode capacitance	$V_R = 0\text{ V}$ , $f = 1\text{ MHz}$	$C_D$		4	5	pF
Reverse recovery time	$I_F = 10\text{ mA}$ , $I_R = 10\text{ mA}$ , $I_{rr} = 1\text{ mA}$ , $R_L = 100\text{ }\Omega$	$t_{rr}$			5	ns

## Package Dimensions in millimeters (inches): SOD-523



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## Disclaimer

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