

SDB3005WT

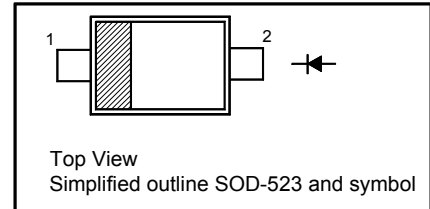
Surface Mount Schottky Barrier Diode

Features

- Ultra small power mold type
- Low forward voltage

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Reverse Voltage	V_R	30	V
Forward Current	I_F	0.5	A
Repetitive Peak Forward Current ($t_p \leq 1$ ms)	I_{FRM}	1	A
Peak Forward Surge Current ($t_p = 8.3$ ms)	I_{FSM}	3	A
Power Dissipation	P_{tot}	310	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55 to + 150	$^\circ\text{C}$

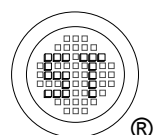
Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance from Junction to Ambient ¹⁾	$R_{\theta JA}$	400	$^\circ\text{C/W}$

¹⁾ Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

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

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at $I_R = 500 \mu\text{A}$	$V_{(BR)R}$	30	-	V
Forward Voltage at $I_F = 0.1$ mA at $I_F = 1$ mA at $I_F = 10$ mA at $I_F = 100$ mA at $I_F = 500$ mA	V_F	- - - - -	180 200 270 360 500	mV
Reverse Current at $V_R = 10$ V at $V_R = 30$ V	I_R	- -	200 500	μA
Total Capacitance at $V_R = 1$ V, $f = 1$ MHz	C_d	-	30	pF



Electrical Characteristic Curves

Fig 1. Forward Current Derating Curve

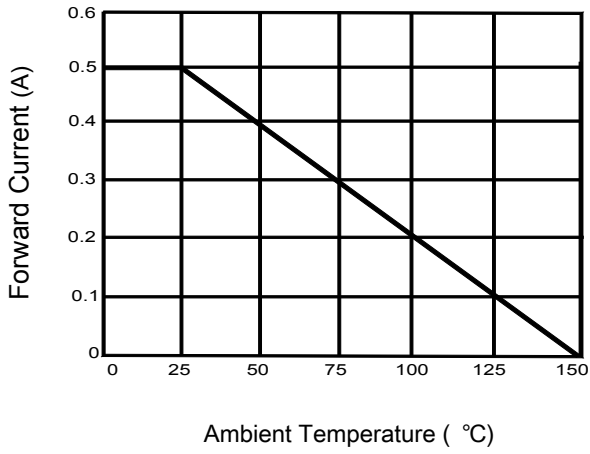


Fig 2. Forward Characteristic Curve

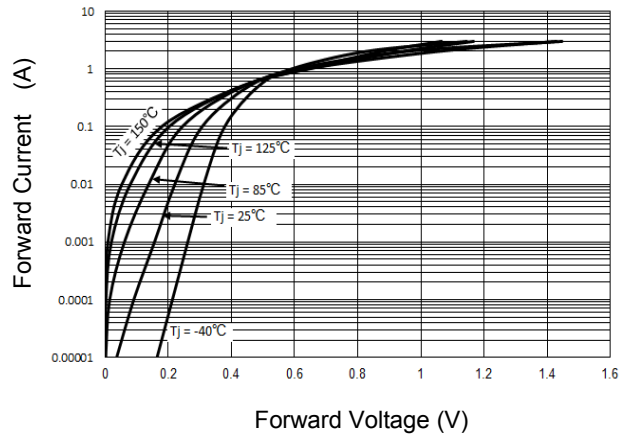


Fig 3. Reverse Characteristic Curve

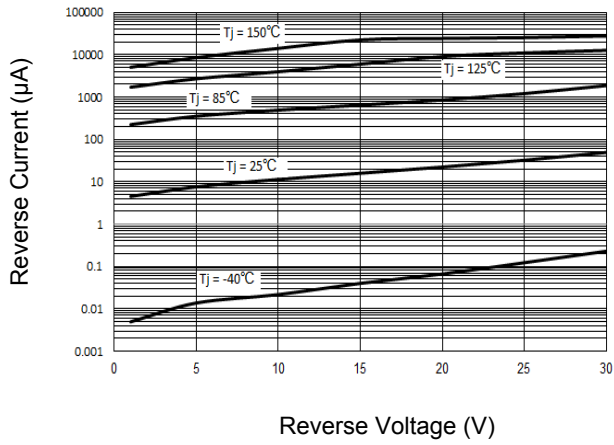
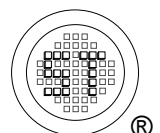
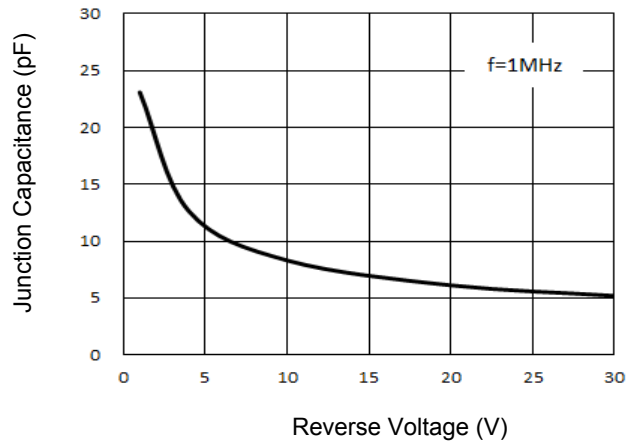


Fig 4. Junction Capacitance

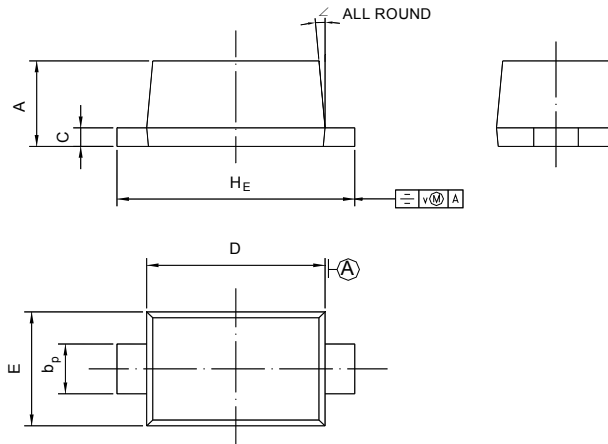


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PACKAGE OUTLINE

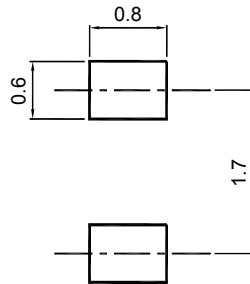
Plastic surface mounted package; 2 leads

SOD-523



UNIT	A	b_p	C	D	E	H_E	V	\angle
mm	0.70 0.60	0.4 0.3	0.135 0.100	1.25 1.15	0.85 0.75	1.7 1.5	0.1	5°

Recommended Soldering Footprint



Packing information

Package	Tape Width (mm)	Pitch		Reel Size		Per Reel Packing Quantity
		mm	inch	mm	inch	
SOD-523	8	4 ± 0.1	0.157 ± 0.004	178	7	4,000

Marking information

" LT " = Part No.

" III " = Cathode line

Font type: Arial



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