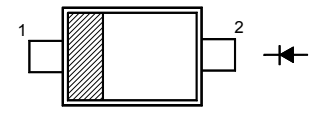
SDB3005WT

Surface Mount Schottky Barrier Diode

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View
Simplified outline SOD-523 and symbol

Features

- Ultra small power mold type
- Low forward voltage

Absolute Maximum Ratings (T_a = 25℃)

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

Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical Thermal Resistance from Junction to Ambient [1)]	$R_{\theta JA}$	400	℃/W

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

Electrical Characteristics (T_a = 25℃)

Parameter	Symbol	Min.	Max.	Unit
Reverse Breakdown Voltage at I_R = 500 μA	$V_{(BR)R}$	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

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Electrical Characteristic Curves

Fig 1. Forward Current Derating Curve

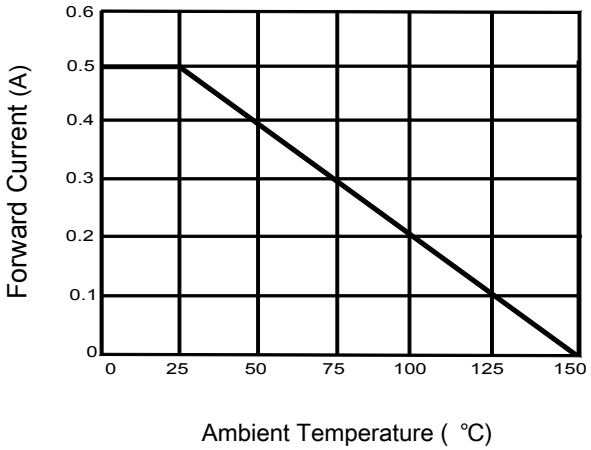


Fig 2. Forward Characteristic Curve

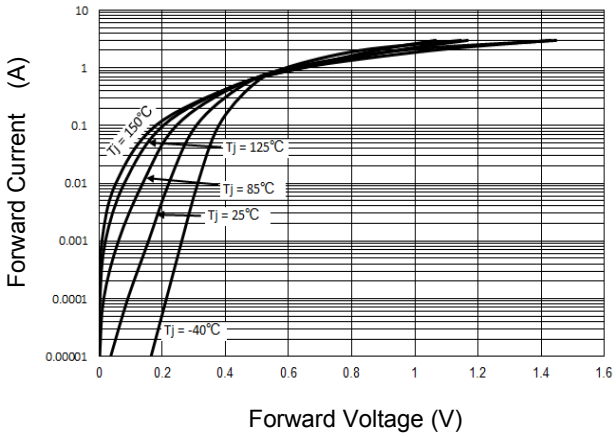


Fig 3. Reverse Characteristic Curve

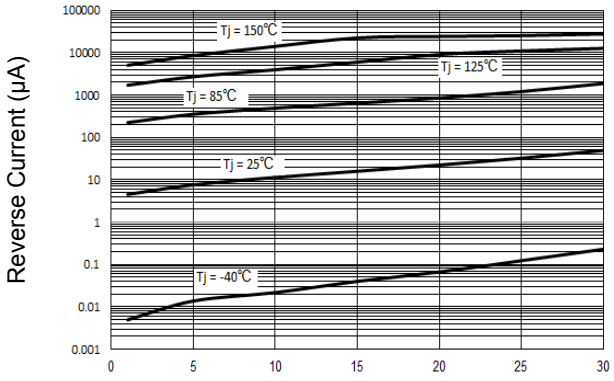
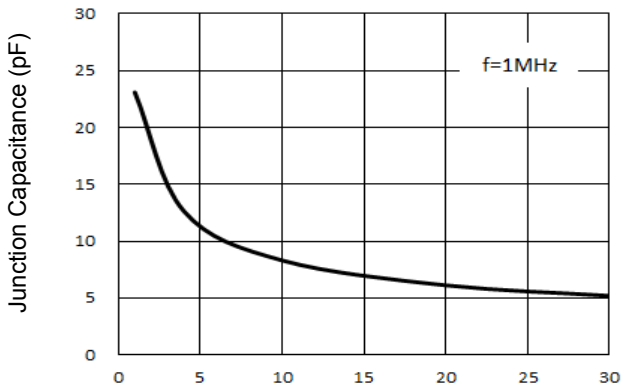
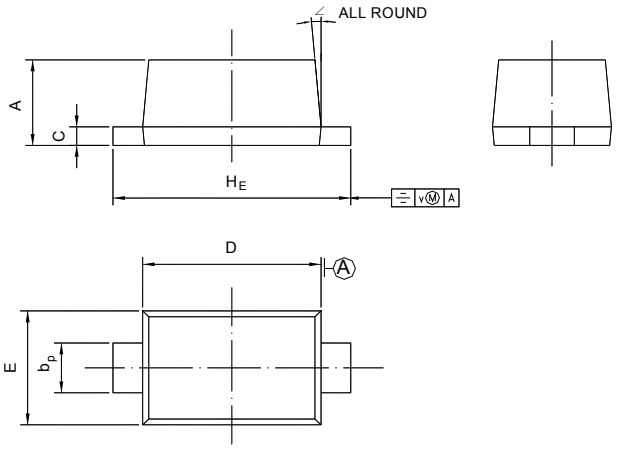


Fig 4. Junction Capacitance



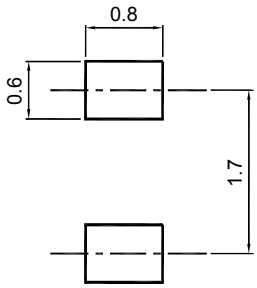
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads **SOD-523**



UNIT	A	b_p	C	D	E	H_E	V	∠
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

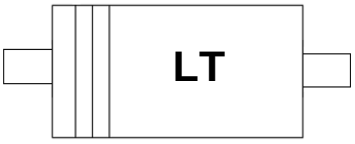


Packing information

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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