



1. Features

SOD323

- Low leakage current: typ. 3 nA
- Switching time: typ. 0.8 μ s
- Continuous reverse voltage: min. 75 V
- Repetitive peak reverse voltage: min. 85 V
- Repetitive peak forward current: max. 500 mA.

2. Mechanical Data

- Case: Molded Plastic, SOD323 .
- Epoxy: UL 94V-0 rate flame retardant.
- Terminals: Plated Leads Solderable per MIL-STD-750, Method-2026.
- Marking: D4.
- Marking: marked on body.



3. Maximum Ratings

Electrical Characteristics Rating at 25°C ambient temperature unless otherwise specified.

Characteristic	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Reverse Voltage	V_R	75	V
Continuous Forward Current	I_F	200	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-Repetitive Peak Forward Current	I_{FSM}	4	A
$t = 1 \mu s$		1	
$t = 1 ms$		0.5	
$t = 1 s$			
Total Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_J	-65 to +150	°C
Storage Temperature Range	T_{stg}	-65 to +150	°C

4. Electrical Characteristics ($T_A=25^\circ C$ unless otherwise noted)

Parameters	Symbol	Condition	Min	TYP	Max	Unit
Forward Voltage	V_F	$I_F = 1 mA$	-	-	0.9	V
		$I_F = 10 mA$			1	
		$I_F = 50 mA$			1.1	
		$I_F = 150 mA$			1.25	
Reverse Current	I_R	$V_R = 75 V$	-	3	5	nA
		$V_R = 75 V, T_J = 150^\circ C$		3	80	nA
Diode Capacitance	C_d	$V_R = 0 V, f = 1 MHz$	-	2	-	pF
Reverse Recovery Time	t_{rr}	$I_F = I_R = 10 mA, I_{rr} = 0.1 I_R, RL = 100 \Omega$	-	0.8	3	ns



5. Rating And Characteristic Curves

Fig.1 Maximum forward current of soldering point temperature.

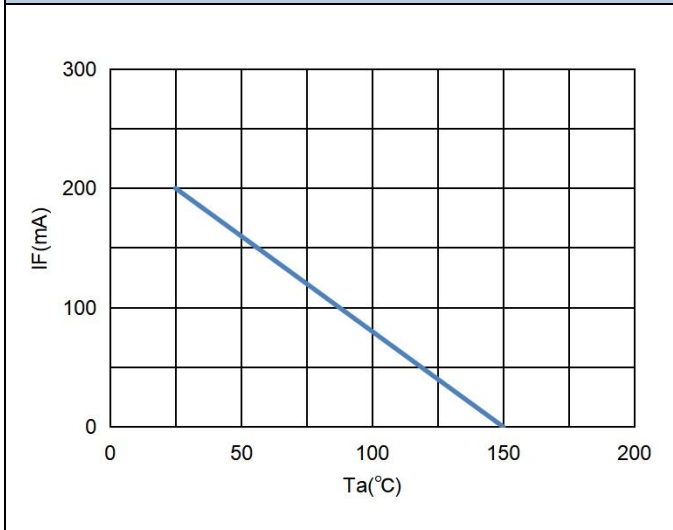


Fig.2 Forward current as a function of forward voltage.

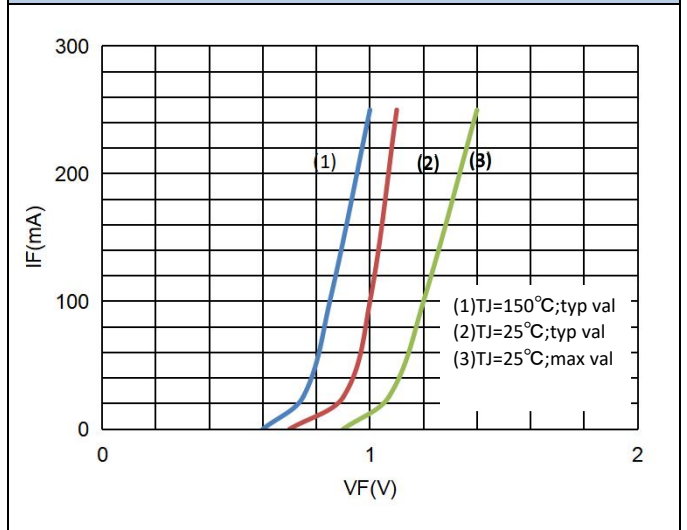


Fig.3 Maximum peak forward current of pulse duration.

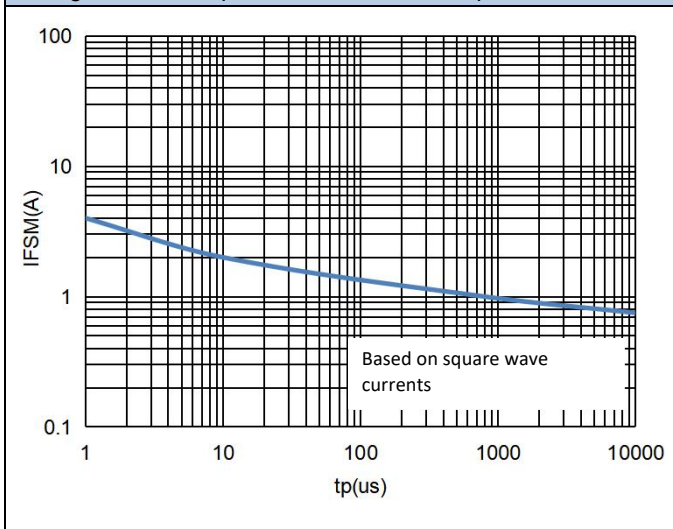


Fig.4 Reverse current as a function of junction temperature.

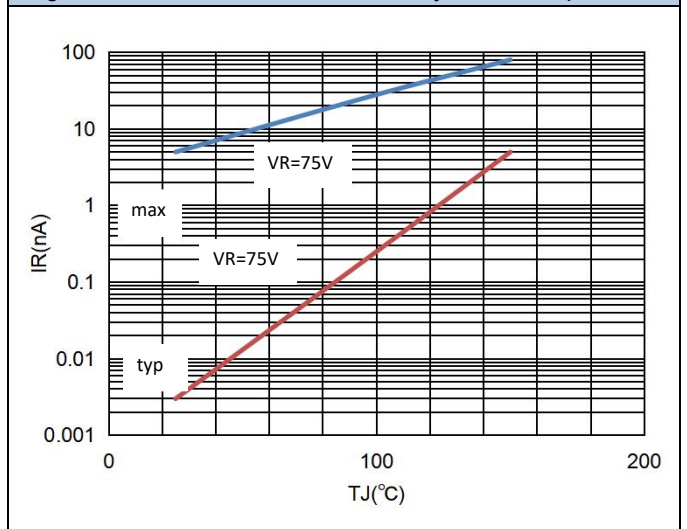
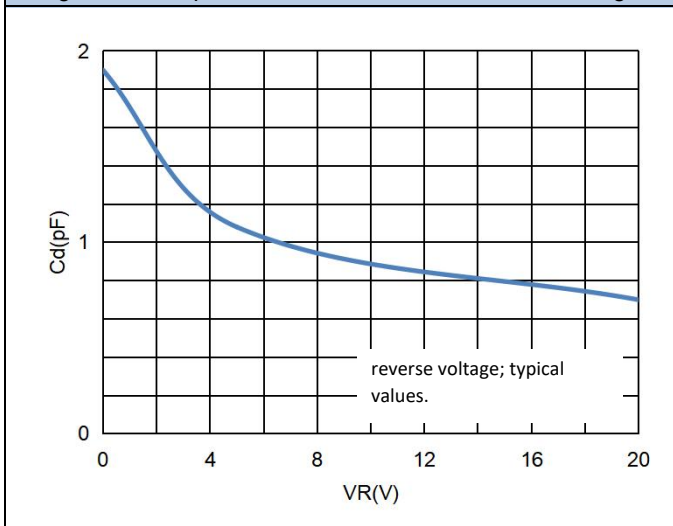
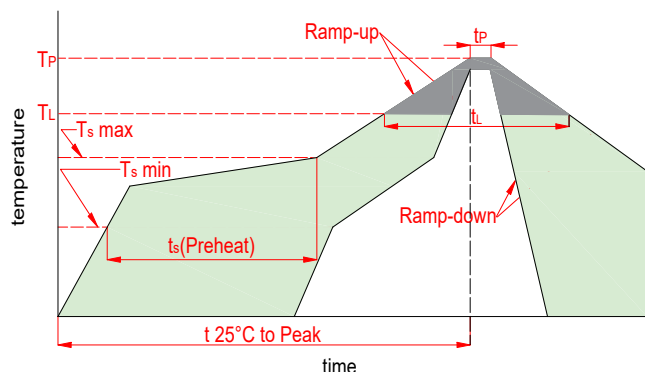


Fig.5 Diode capacitance as a function of reverse voltage.



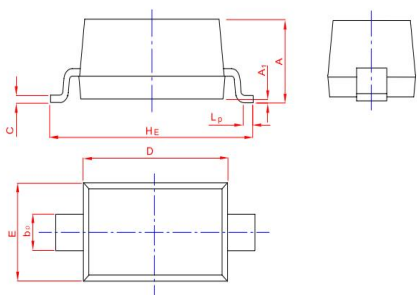


6. Soldering Parameters



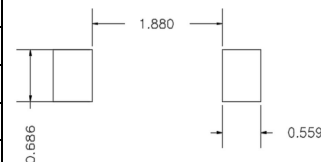
Reflow Condition		Lead-free
Pre Heat	Temp. min($T_s(\min)$)	150°C
	Temp. max($T_s(\min)$)	200°C
	Time(min to max)(t_s)	60~120s
Aver. ramp up rate(Liquidus Temp.)(T_L)to peak		3°C/s max
$T_s(\max)$ to T_L -Ramp-up Rate		3°C/s max
Reflow	Temp. (T_L)(Liquidus)	217°C
	Temp. (t_L)(Liquidus)	60~150s
Peak Temp. (T_P)		260 ^{+0/-5} °C
Time within actual peak Temp. (t_p)		30s max
Ramp-down Rate		6°C/s max
Time 25°C to peak Tempe. (T_p)		8 minutes max
Do not exceed		260°C

7. Dimensions

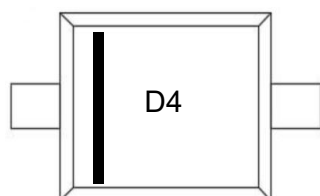


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.031	0.047	0.800	1.200
bp	0.010	0.016	0.250	0.400
C	0.003	0.006	0.080	0.150
D	0.063	0.071	1.600	1.800
E	0.045	0.055	1.150	1.400
HE	0.091	0.110	2.300	2.800
A1	0.000	0.004	0.010	0.100
LP	0.008	0.020	0.200	0.500

Mounting PAD Layout



8. Part Marking System



9. Package Information

Package	Type	Tape Width (mm)	Quantity(pcs)
SOD323	BAS416WS	8	3000



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