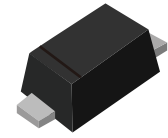


FEATURES

- | Small Package

- | Low Forward Voltage

- | Low Reverse Current



SOD-523

MECHANICAL DATA

- | SOD-523 Small Outline Plastic Package

- | Polarity: Color Band Denotes Cathode End

- | Mounting Position: Any



Marking



Schematic Symbol

APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	45	V
DC Reverse Voltage	V_R	40	V
Average Forward Current	I_O	100	mA
Maximum (Peak) Forward Current	I_{FM}	300	mA
Non-Repetitive Peak Forward Surge Current@t=8.3ms	I_{FSM}	1000	mA
Power Dissipation	P_D	150	mW
Operating Junction Temperature	T_J	-40+125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-50+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F=1\text{mA}$		0.28		V
		$I_F=10\text{mA}$		0.36		V
		$I_F=50\text{mA}$		0.54	0.60	V
Reverse Current	I_R	$V_R=10\text{V}$			5	μA
Total Capacitance	C_T	$V_R=0\text{V}, f=1\text{MHz}$		18	25	pF

CHARACTERISTIC CURVES

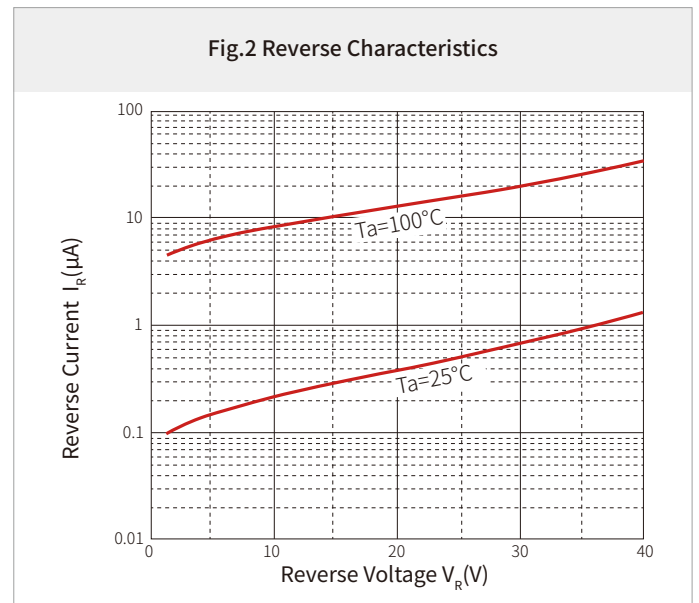
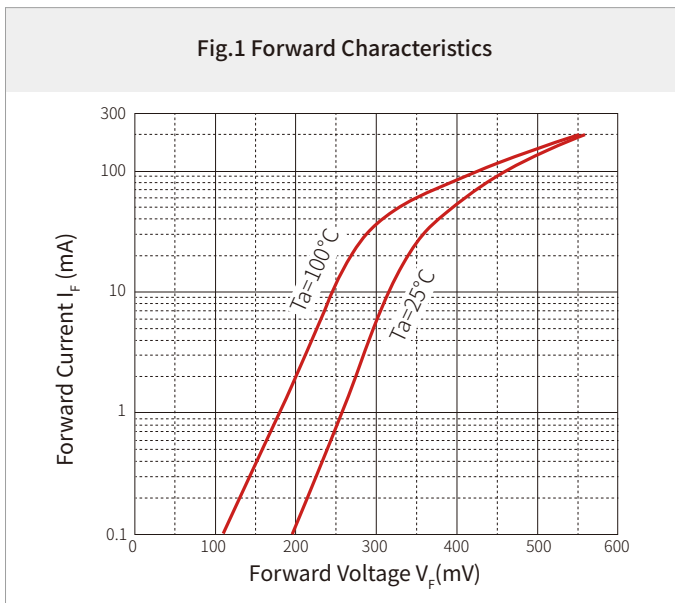
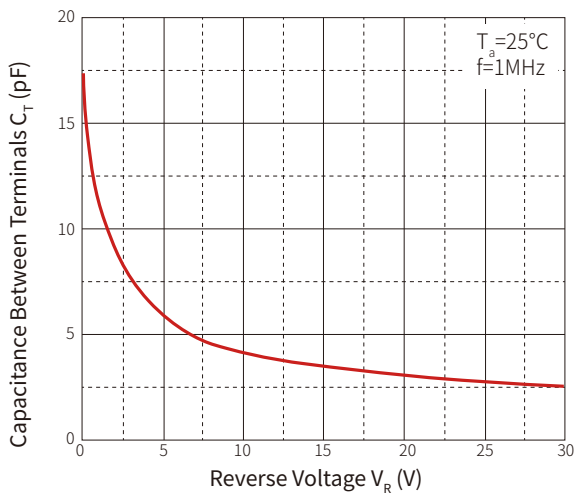
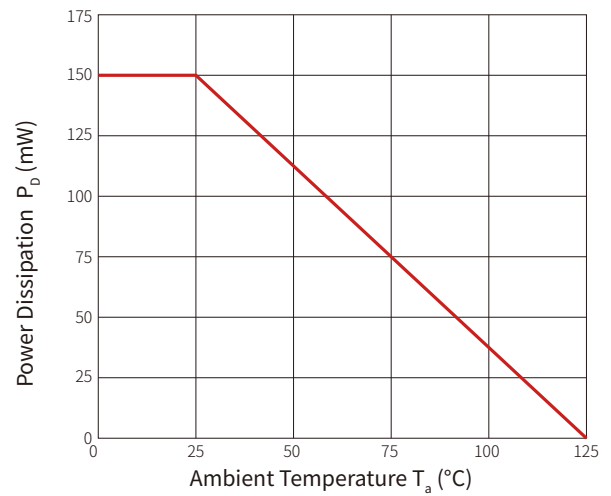
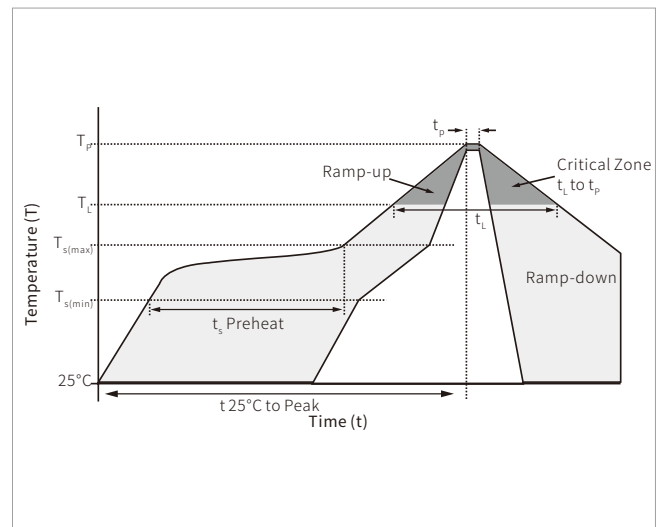


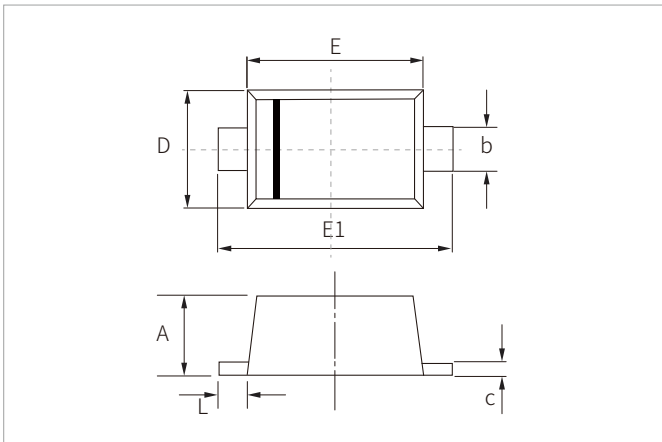
Fig.3 Capacitance Characteristics

Fig.4 Power Derating Curve


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(\text{min})}$)	150 $^\circ\text{C}$
	Temperature Max ($T_{s(\text{max})}$)	200 $^\circ\text{C}$
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3 $^\circ\text{C}/\text{second}$ max
$T_{s(\text{max})}$ to T_L - Ramp-up Rate		3 $^\circ\text{C}/\text{second}$ max
Reflow	Temperature (T_L) (Liquidus)	217 $^\circ\text{C}$
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260 $^\circ\text{C}$
Time within 5 $^\circ\text{C}$ of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6 $^\circ\text{C}/\text{second}$ max
Time 25 $^\circ\text{C}$ to peak Temperature (T_p)		8 minutes max.
Do not exceed		260 $^\circ\text{C}$

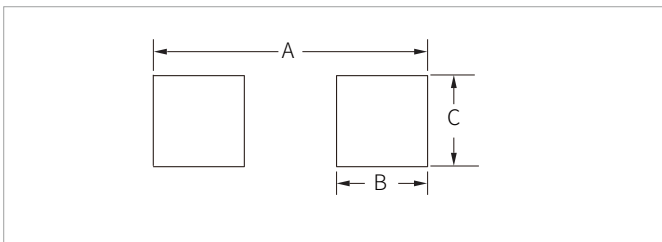


SOD-523 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.50	0.80	0.020	0.031
b	0.25	0.35	0.010	0.014
c	0.07	0.20	0.003	0.008
D	0.70	0.90	0.028	0.035
E	1.10	1.30	0.043	0.051
E1	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
	Min.	Min.
A	2.00	0.0787
B	0.60	0.0236
C	0.70	0.0276

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
1SS388	SOD-523	3000PCS	7"

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