

FEATURES

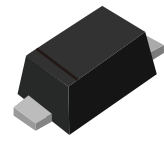
- | Low Forward Voltage Drop

- | Flat Lead SOD-523 Small Outline Plastic Package

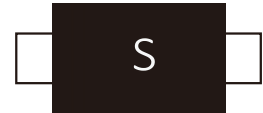
- | Surface Device Type Mounting

- | Green EMC

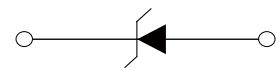
- | Band Indicates Cathode



SOD-523



Marking



Schematic Symbol

APPLICATIONS

- | Low Current Rectification and High Speed Switching

APPROVALS

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

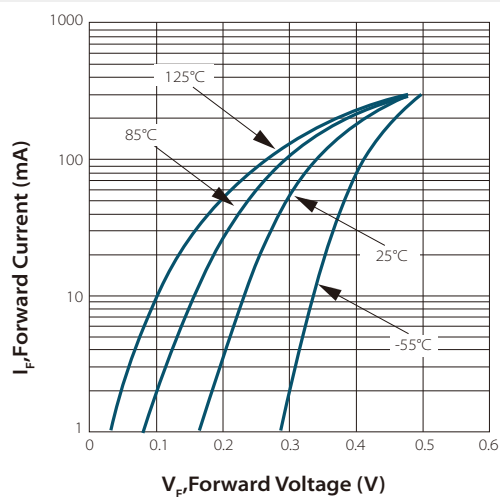
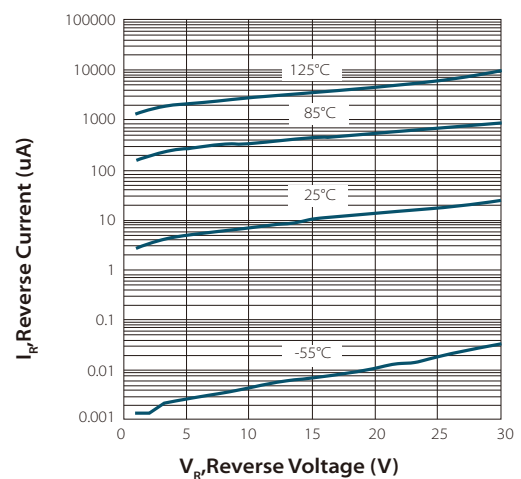
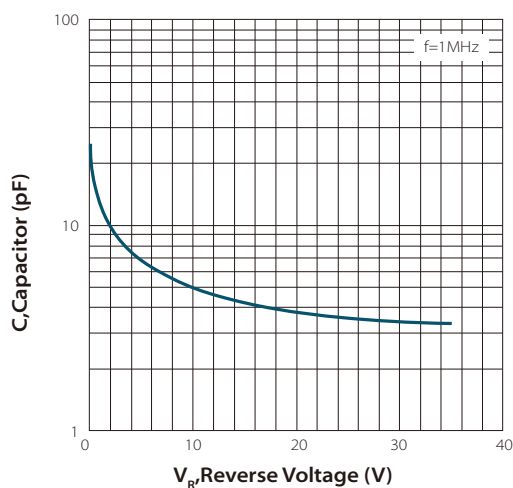
MAXIMUM RATINGS (T_A = 25°C)

Parameter	Symbol	Value	Unit
Reverse voltage	V _R	40	V
Mean Rectifying current	I _{F(AV)}	200	mA
Peak forward surge current 8.3 ms single half sine-wave	I _{FSM}	1	A
Power Dissipation	P _D	150	mW
Operating junction range	T _J	125	°C
storage temperature range	T _{STG}	-55 to 150	°C

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

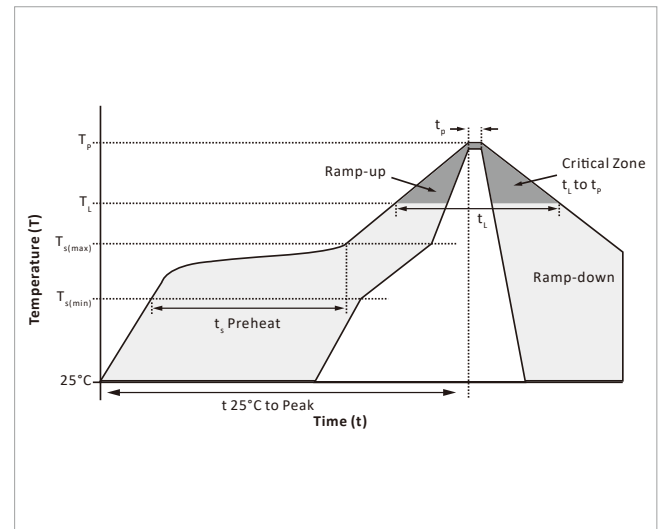
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F=200\text{mA}$			0.54	V
Reverse Leakage Current	I_R	$V_R=10\text{V}$			20	μA
Breakdown Voltage	V_B	$I_R=0.1\text{mA}$	40			V

CHARACTERISTIC CURVES

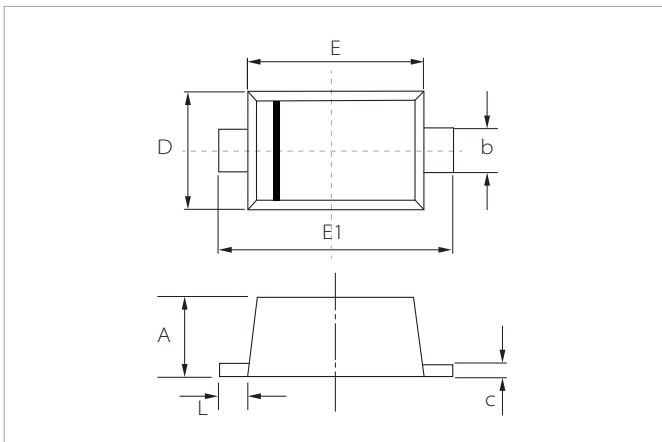
Fig.1 Forward Characteristics

Fig.2 Reverse Characteristics

Fig.3 Capacitor Characteristics


SOLDERING PARAMETERS

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

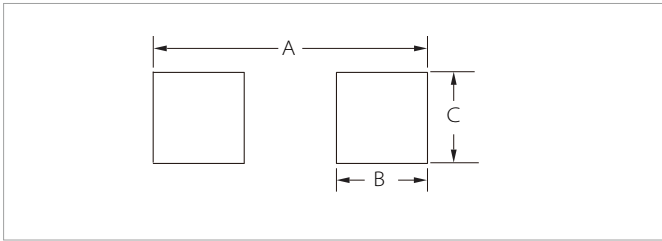


SOD-523 PACKAGE INFORMATION



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
SRB521S-40	SOD-523	3000PCS	7"

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