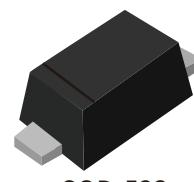


FEATURES

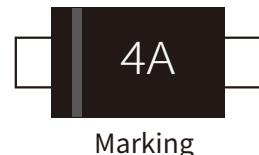
- | Low Forward Voltage Drop
- | Cathode Band / Device marking
- | Surface Mount Package Ideally Suited for Automatic Insertion



SOD-523

MECHANICAL DATA

- | Encapsulation: 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
Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Average Forward Rectified Current	$I_{F(AV)}$	1	A
Non-Repetitive Peak Forward Surge Current (@ $t=8..3\text{ms}$)	I_{FSM}	6	A
Operating junction temperature range	T_J	125	$^\circ\text{C}$
Storage temperature range	T_{STG}	-50 to 125	$^\circ\text{C}$

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

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Reverse breakdown voltage	V_{BR}	$I_R=0.5\text{mA}$	40			V
Reverse current	I_R	$V_R=40\text{V}$		100		μA
Forward Voltage	V_F	$I_F=0.3\text{mA}$		0.5		V
		$I_F=1\text{A}$		0.68		
Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$		100		pF

CHARACTERISTIC CURVES

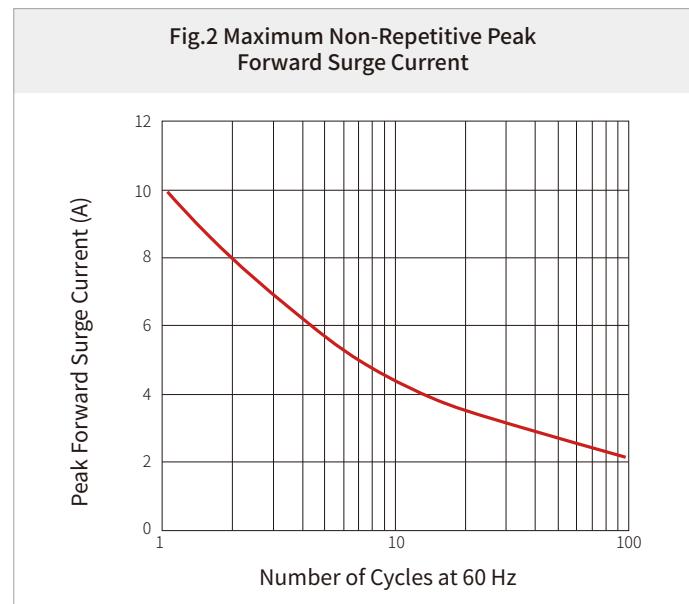
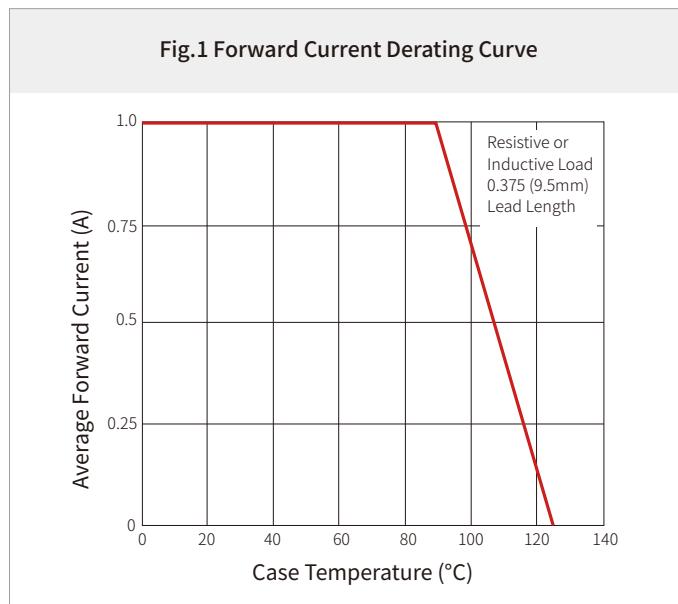
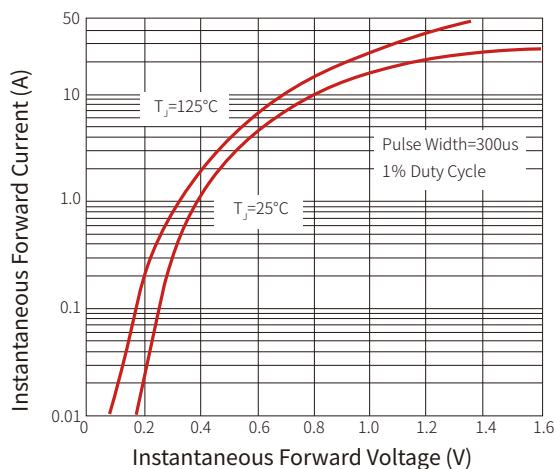
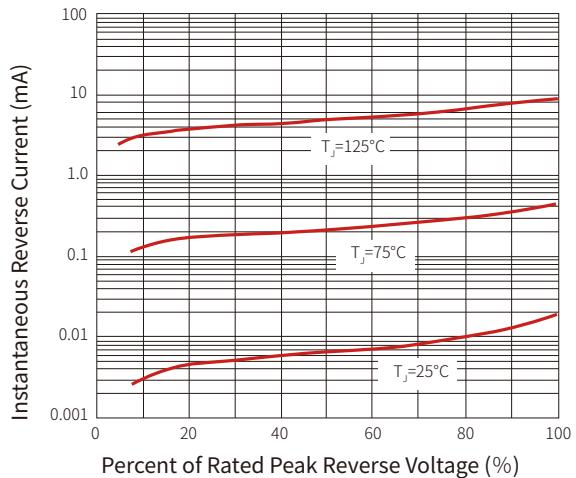
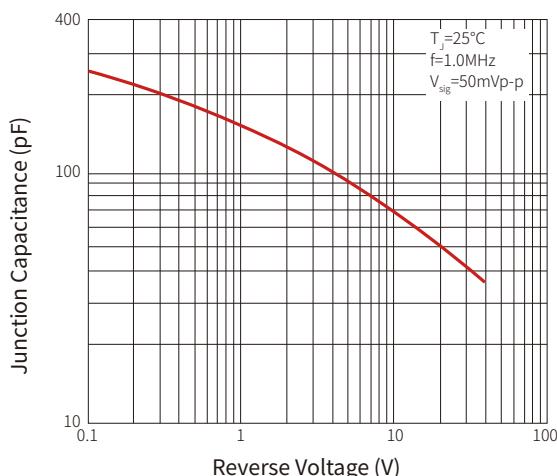
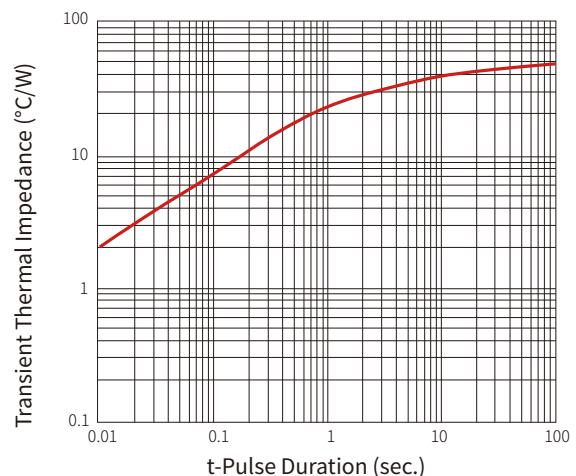
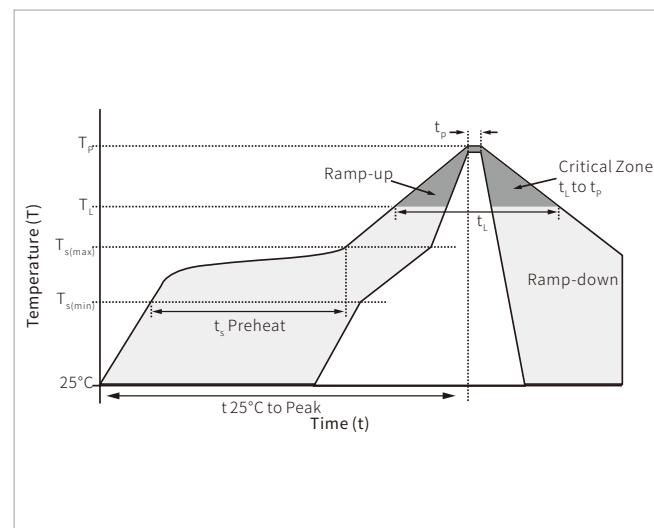


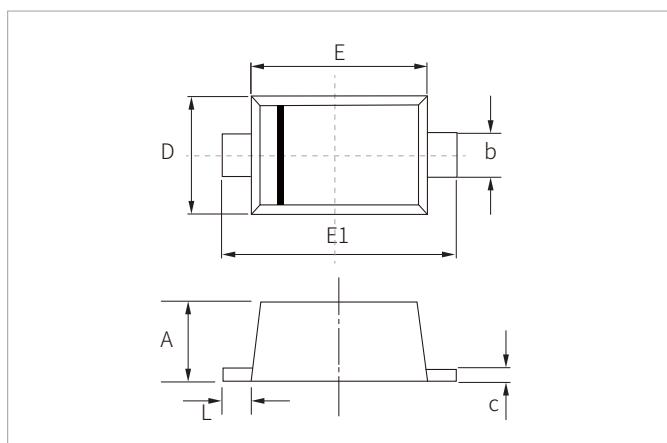
Fig.3 Typical Instantaneous Forward Characteristics

Fig.4 Typical Reverse Characteristics

Fig.5 Typical Junction Capacitance

Fig.6 Typical Transient Thermal Impedance


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_s)	60 – 180 secs
Reflow	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
	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

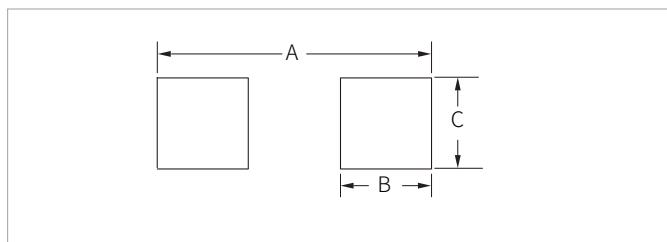


SOD-523 PACKAGE INFORMATION



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
1N5819WT	SOD-523	3000PCS	7"

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By QR Code

Website



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