

Features and benefits

- Average forward current: $I_{F(AV)} \leq 200 \text{ mA}$
- Reverse voltage: $V_R \leq 40 \text{ V}$
- Low forward voltage: $V_F \leq 580 \text{ mV @200mA}$
- Leadless ultra small SMD plastic package
- We declare that the material of product compliance with RoHS requirements and Halogen Free

Application information

- Low voltage rectification
- High efficiency DC-to-DC conversion
- Switch Mode Power Supply (SMPS)
- Reverse polarity protection
- Low power consumption applications

Schematic & Pin configuration

Simplified outline



Graphic symbol



Maximum Ratings ($T_A = 25^\circ\text{C}$, unless otherwise specified)

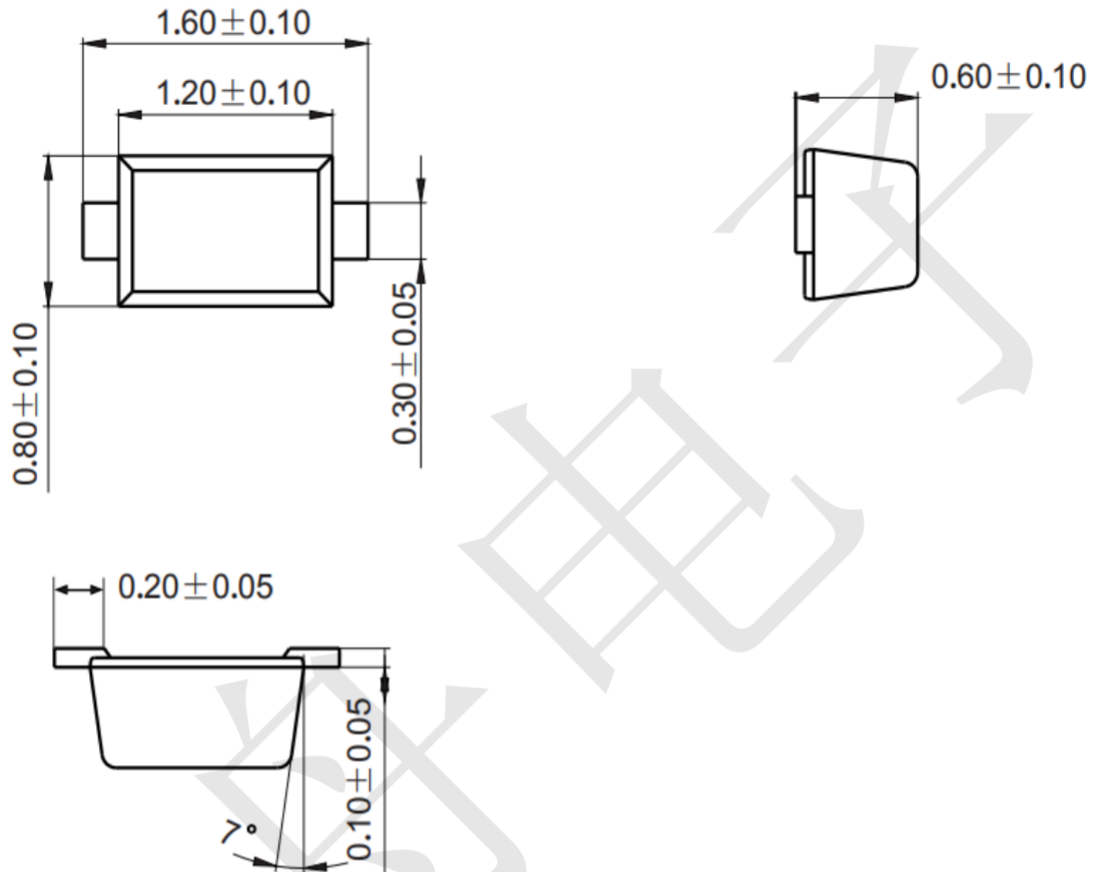
Parameter	Symbol	Value	Unit
DC reverse voltage	V_R	40	V
Average rectified forward current	I_O	200	mA
Forward current surge peak(60Hz•1cyc)	I_{FSM}	1	A
Junction temperature	T_j	125	$^\circ\text{C}$
Storage temperature	T_{stg}	-40 to +125	$^\circ\text{C}$

Electrical Characteristics ($T_A = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Condition
Forward voltage	V_F	0.41	--	0.58	V	$I_F = 200\text{mA}$
		0.31	--	0.45		$I_F = 100\text{mA}$
		0.16	--	0.35		$I_F = 10\text{mA}$
Reverse current	I_R	--	--	2	μA	$V_R = 10\text{V}$
		--	--	20		$V_R = 40\text{V}$
Reverse voltage	V_R	40	--	--	V	$I_R = 100\mu\text{A}$

Package information (Unit: mm)

SOD523



Mounting Pad Layout (Unit: mm)

