

Silicon Epitaxial Planar Diode

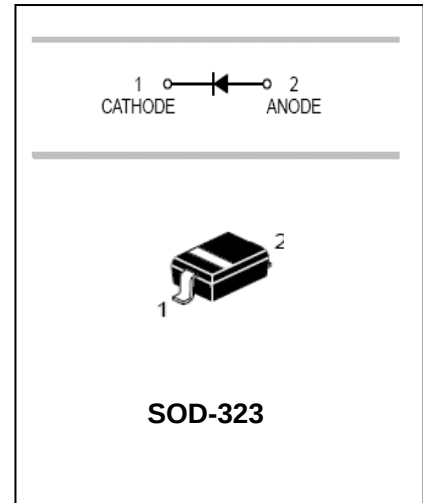
SD106WS

FEATURES

- Low turn-on voltage
- Fast switching
- This device is protected by a PN junction guard ring against excessive voltage, such as electrostatic discharge
- Ideal for precaution of MOS device ,steering ,biasing , and coupling diodes for fast switching and low logic level application
- Microminiature plastic package



Lead-free



APPLICATIONS

- High speed switching

ORDERING INFORMATION

Type No.	Marking	Package Code
SD106WS	S21	SOD-323

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Limits	Unit
Non-Repetitive Peak reverse voltage	V_{RM}	30	V
Peak forward Current	I_{FM}	200	mA
Forward surge current @ $t_p=10ms$	I_{FSM}	1	A
Power dissipation	P_{tot}	250	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	500	°C/W
Junction temperature	T_j	150	°C
Storage temperature	T_{STG}	-65 to +150	°C



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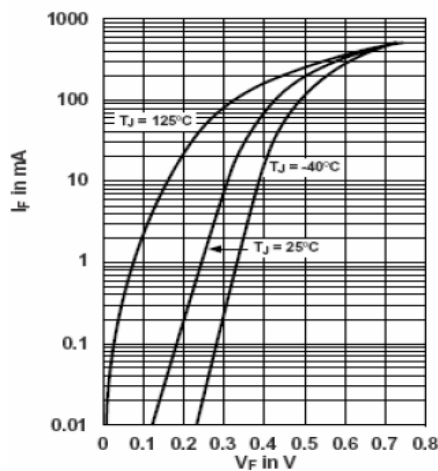
SD106WS

ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

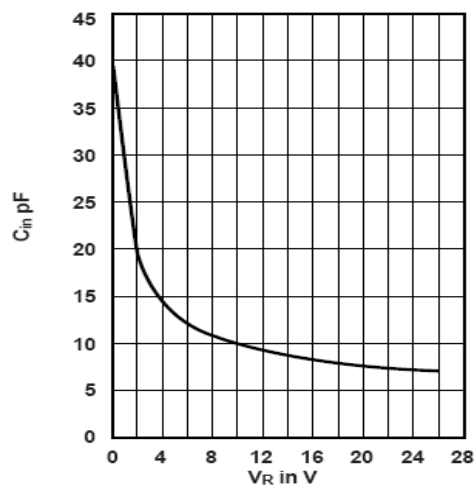
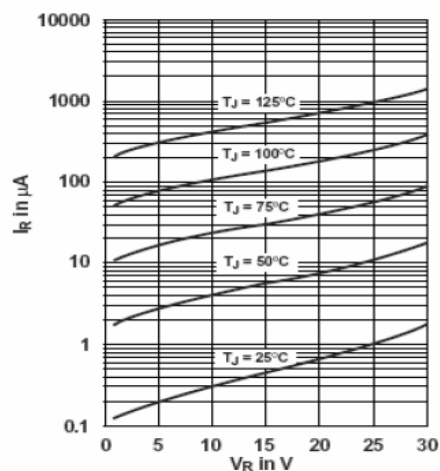
Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse breakdown voltage	V_R	30			V	$I_R=100\mu\text{A}$
Forward voltage	V_F		260		mV	$I_F=2\text{mA}$
			320			$I_F=15\text{mA}$
			420			$I_F=100\text{mA}$
			490	550		$I_F=200\text{mA}$
Reverse current	I_R			5	μA	$V_R=30\text{V}$
Capacitance between terminals	C_T			15	pF	$V_R=10\text{V}, f=1\text{MHz}$

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

Forward Voltage Forward Current
at Various Temperatures
(Typical Values)



Typical Variation of Reverse
Current at Various Temperatures



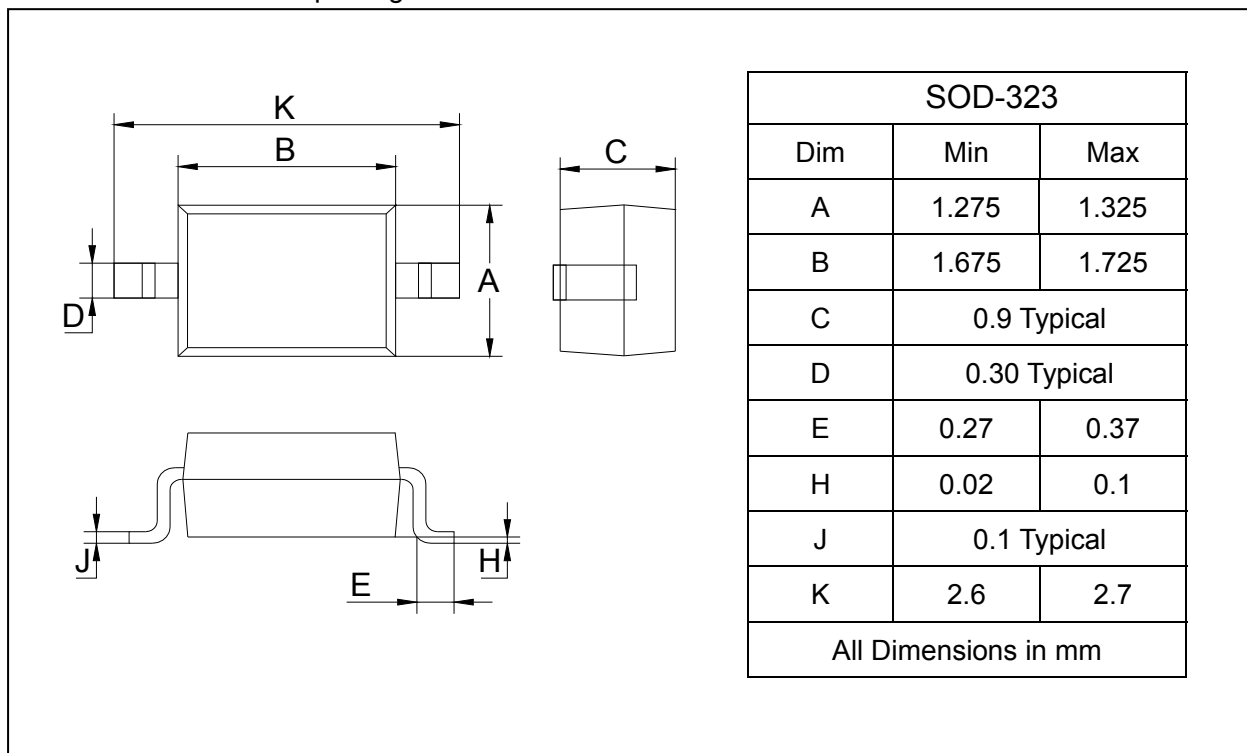
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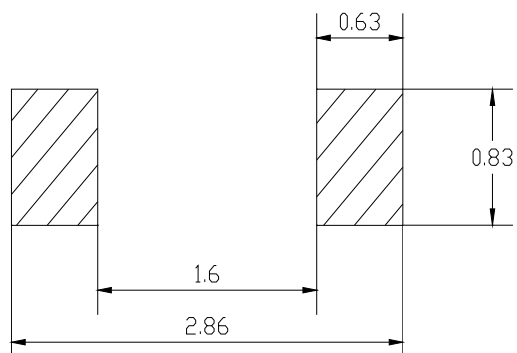
PACKAGE OUTLINE

Plastic surface mounted package

SOD-323



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
SD106WS	SOD-323	3000/Tape&Reel