

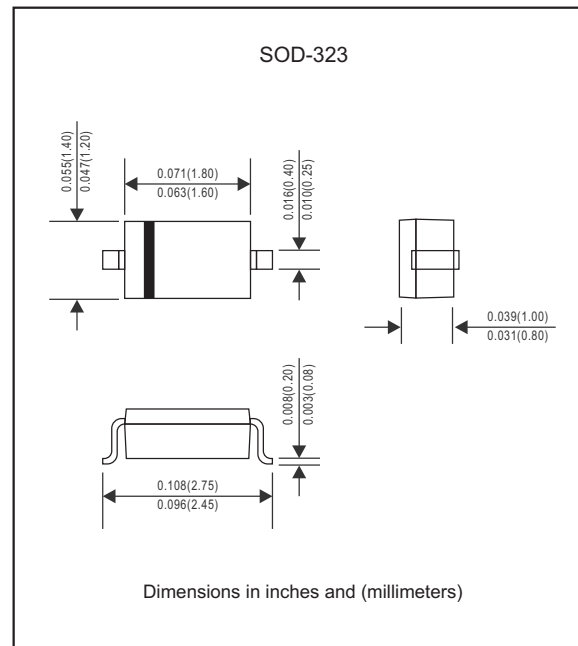
Features

- Low current rectification and high speed switching.
- Extremely small surface mount type.
- Low forward voltage drop.
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts for green partner, exceeds environmental standards of MIL-STD-19500 /228
- Compliant to Halogen-free
- Suffix "-Q1" for AEC-Q101

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-323
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

Package outline



Maximum ratings (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{RRM}	Repetitive Peak Reverse Voltage	60	V
V_R	DC Blocking Voltage	60	V
$V_{R(RMS)}$	RMS reverse voltage (DC)	42	V
I_O	Continuous Forward Current	15	mA
I_{FSM}	Non-Repetitive Peak Forward Current *1	2	A
P_D	Power Dissipation	200	mW
T_J	Junction Temperature	125	$^{\circ}\text{C}$
T_{STG}	Storage Temperature	-55 to +150	$^{\circ}\text{C}$

*1 8.3 ms single half sine-wave

Electrical characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Conditions	Min	Max	Units
BV_R	Breakdown Voltage	$I_R = 10 \mu\text{A}$	60		V
I_R	Reverse Current	$V_R = 50\text{V}$		0.2	μA
V_F	Forward Voltage	$I_F = 1.0\text{mA}$		0.41	V
		$I_F = 15\text{mA}$		1.00	V
C_T	Capacitance between terminals	$V_R = 0\text{V}, f=1\text{MHZ}$		2.0	pf
t_{rr}	Reverse recovery time	$I_F = I_R = 5\text{mA}$, $I_{rr} = 0.1 * I_R$, $R_L = 100 \Omega$,		1.0	ns

Rating and characteristic curves

Fig. 1 POWER DERATING CURVE

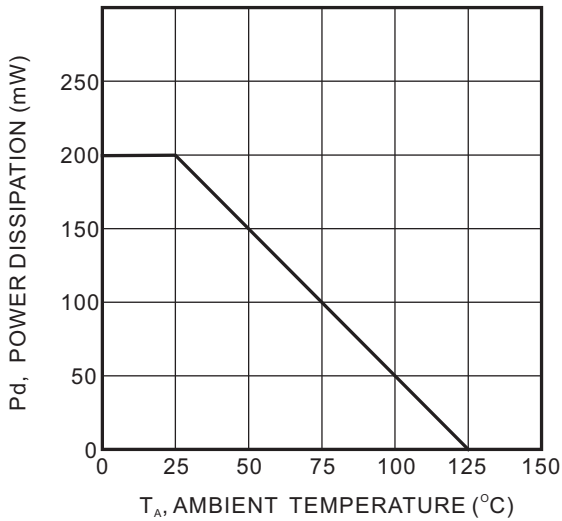


Fig. 2 TYPICAL FORWARD CHARACTERISTIC

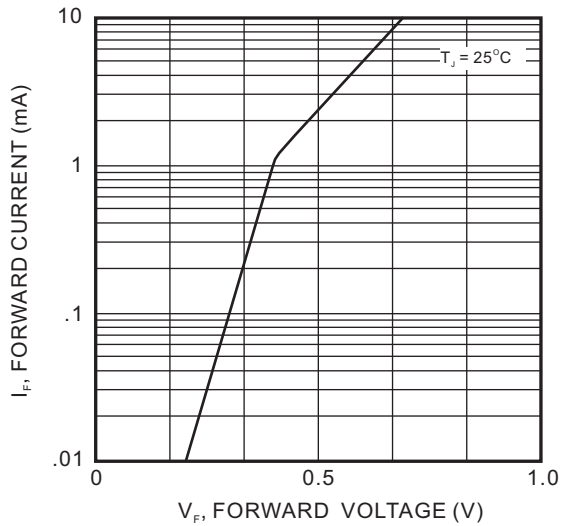


Fig. 3 TYPICAL TOTAL CAPACITANCE vs. REVERSE VOLTAGE

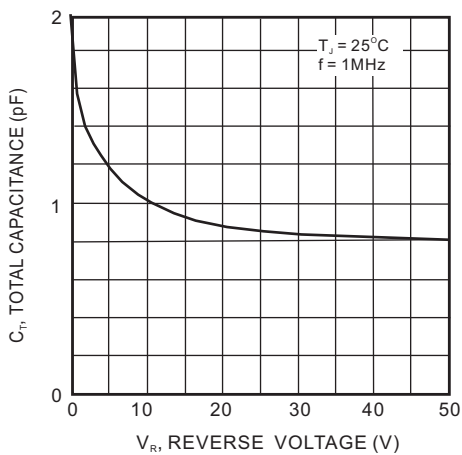
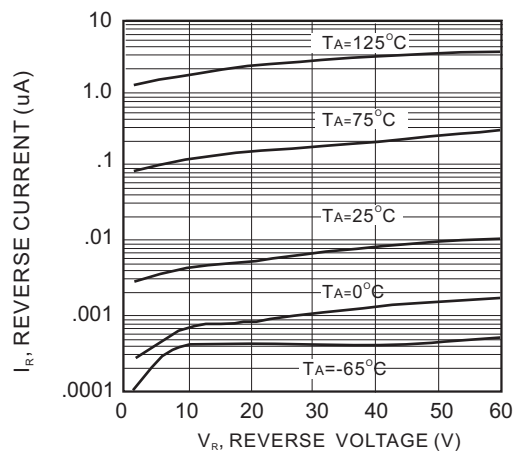




Fig. 4 TYPICAL REVERSE CHARACTERISTICS



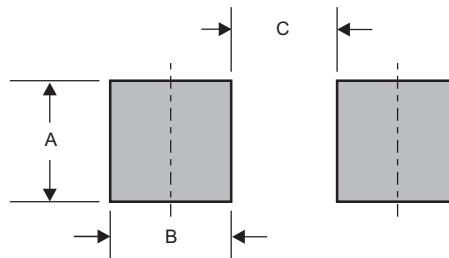
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
SD101AWS-Q1	SA

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-323	0.033 (0.83)	0.025 (0.63)	0.063 (1.60)