

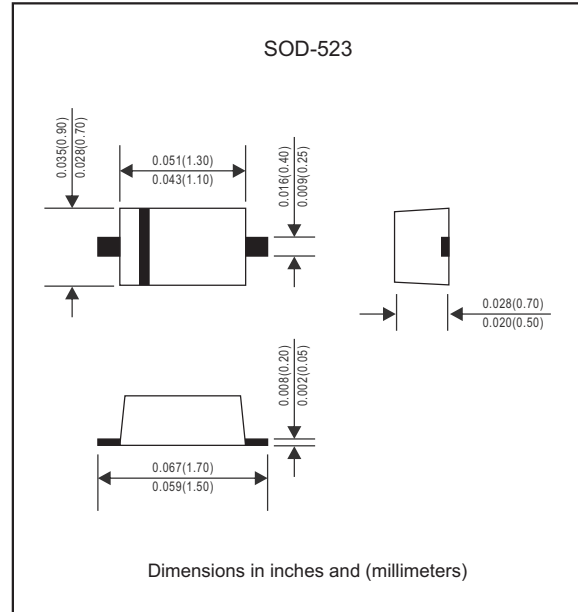
Features

- Low current rectification and high speed switching.
- Extremely small surface mount type.
- Up to 200mA current capability.
- Low forward voltage drop .
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts meet exceeds environmental standards of MIL-STD-19500 /228
- Compliant to Halogen-free

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-523
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

Package outline

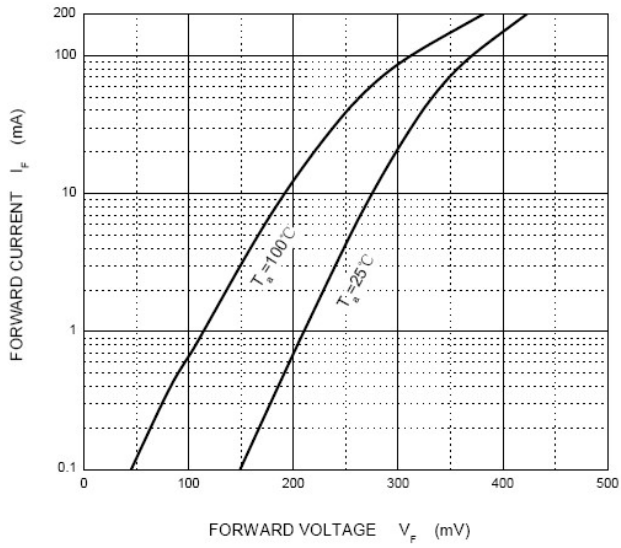


Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

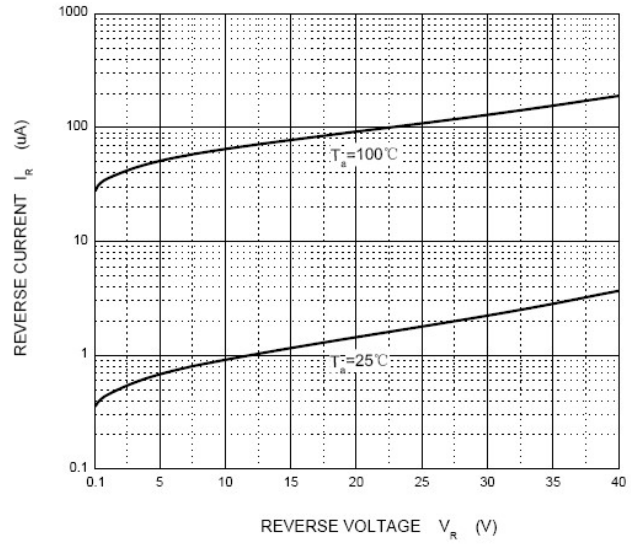
PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Repetitive peak reverse voltage		V_{RM}	40			V
Continuous reverse voltage		V_R	40			V
Mean rectifying current		I_o			200	mA
Forward surge current	60Hz for 1cycle	I_{FSM}			1000	mA
Operating junction temperature range		T_J	-55		+125	$^\circ\text{C}$
Storage temperature range		T_{STG}	-55		+125	$^\circ\text{C}$
Forward voltage	$I_F = 200 \text{ mA}$	V_F			0.54	V
Reverse current	$V_R = 10 \text{ V}$	I_R			20	μA
Diode capacitance	$V_R = 10 \text{ V}, f = 1\text{MHz}$	C_T		6.0		pF

RATING AND CHARACTERISTIC CURVES

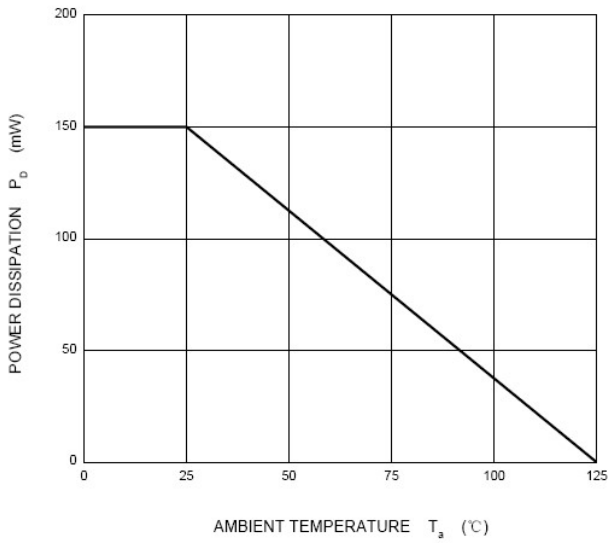
Forward Characteristics





Reverse Characteristics



Power Derating Curve



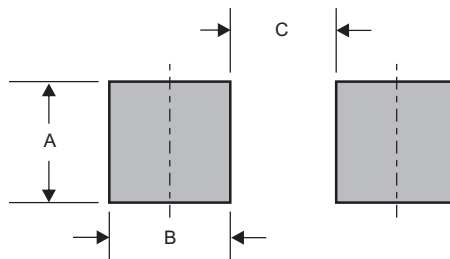
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
RB521S-40	S

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-523	0.032 (0.80)	0.024 (0.60)	0.044 (1.10)