

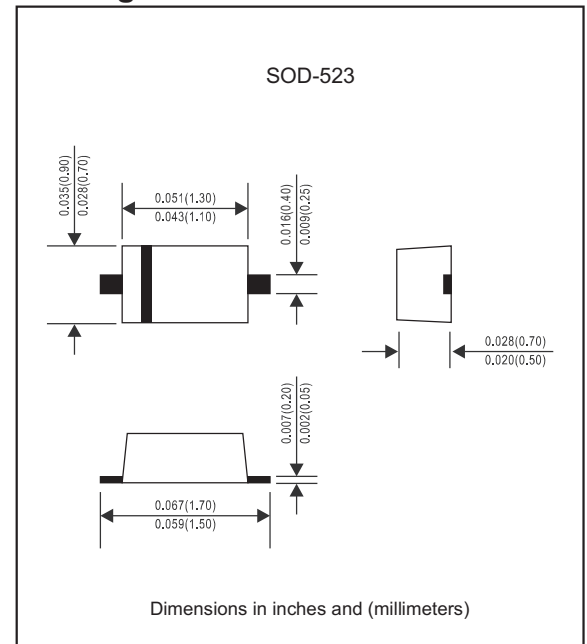
Features

- Low current rectification and high speed switching.
- Extremely small surface mount type.
- Up to 200mA current capability.
- Low forward voltage drop ($V_F = 0.6V$ max. @ $I_F = 200mA$)
- Silicon epitaxial planar chip, metal silicon junction.
- Lead-free parts meet 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-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 $T_A = 25^\circ C$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Repetitive peak reverse voltage		V_{RM}			30	V
Continuous reverse voltage		V_R			30	V
Average Rectifier Forward Current		I_O			200	mA
Total power dissipation	$T_a = 25^\circ C$	P_D			150	mW
Peak Forward Surge Current	60Hz for 1 cycle	I_{FSM}			1000	mA
Thermal Resistance	Junction to Ambient Junction to Case	$R_{\theta JA}$ $R_{\theta JC}$		833 625		$^\circ C/W$ $^\circ C/W$
Operating junction temperature range		T_J	-40		+125	$^\circ C$
Storage temperature range		T_{STG}	-40		+125	$^\circ C$
Forward voltage	$I_F = 200$ mA	V_F			0.60	V
Reverse current	$V_R = 10$ V	I_R			1.0	μA
Diode capacitance	$V_R = 10$ V, $f = 1$ MHz	C_T		4.0		pF

RATING AND CHARACTERISTIC CURVES (RB520S-30-Q1)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

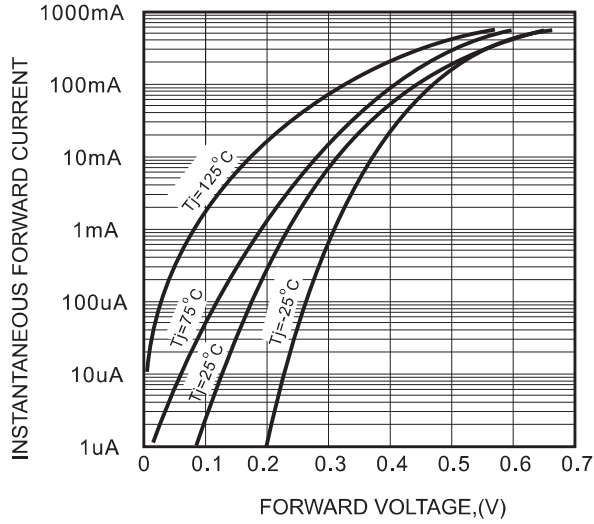


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

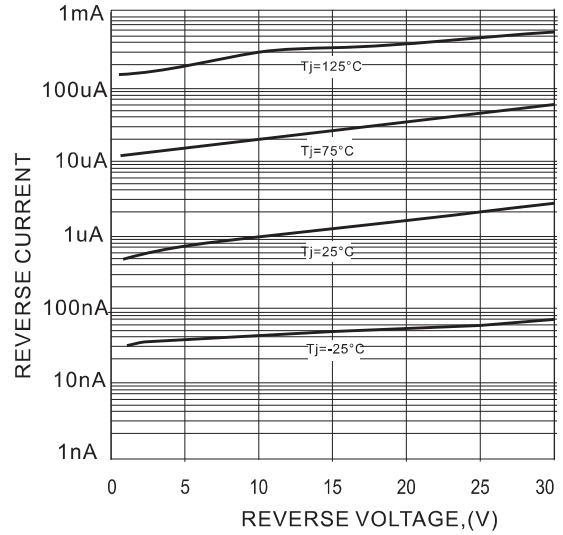


FIG.3-TYPICAL TERMINALS CAPACITANCE

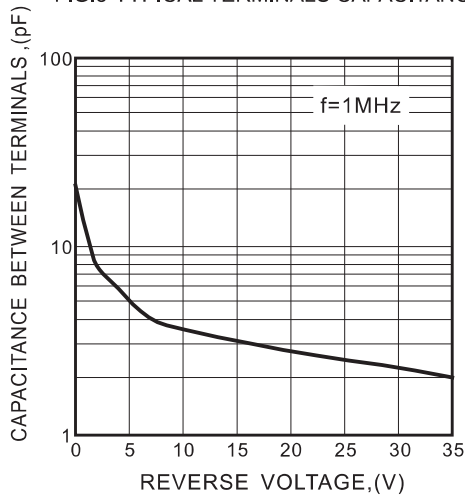
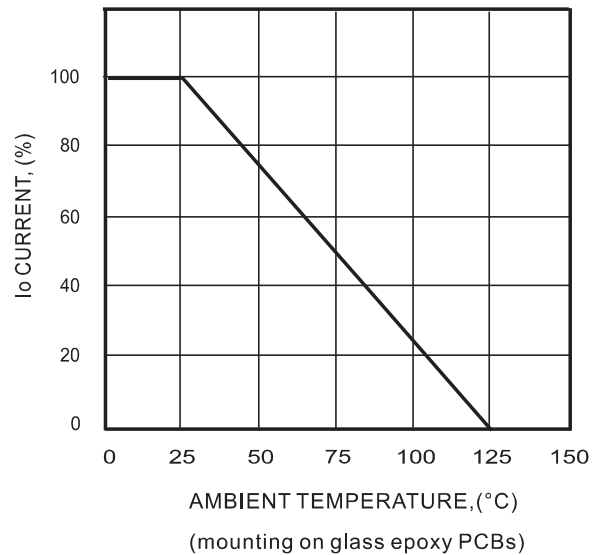




FIG.4- DERATING CURVE



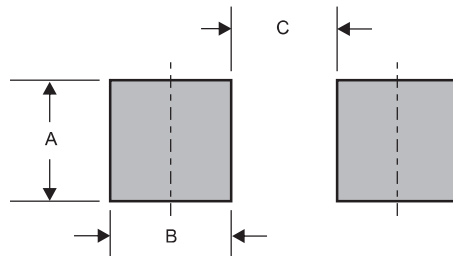
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
RB520S-30-Q1	B

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)