

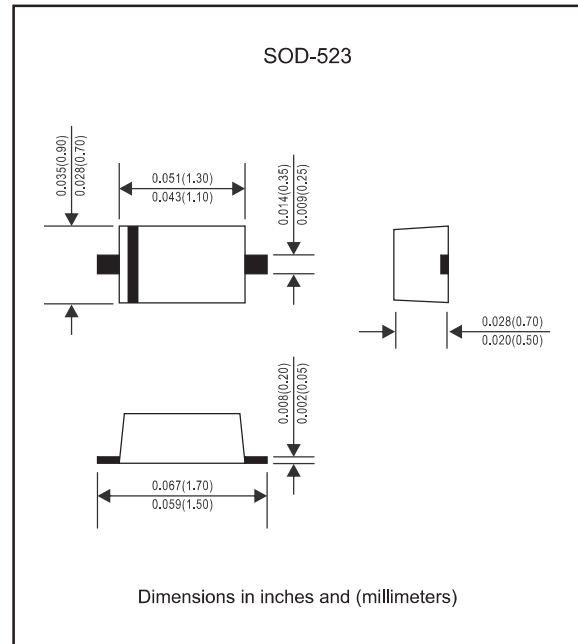
### Features

- 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

### 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	$\mu A$
Diode capacitance	$V_R = 10$ V, $f = 1$ MHz	$C_T$		4.0		pF

### RATING AND CHARACTERISTIC CURVES (RB520S-30)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

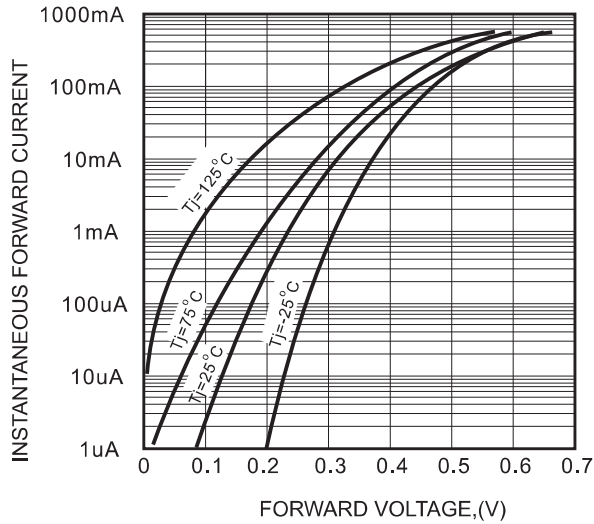


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

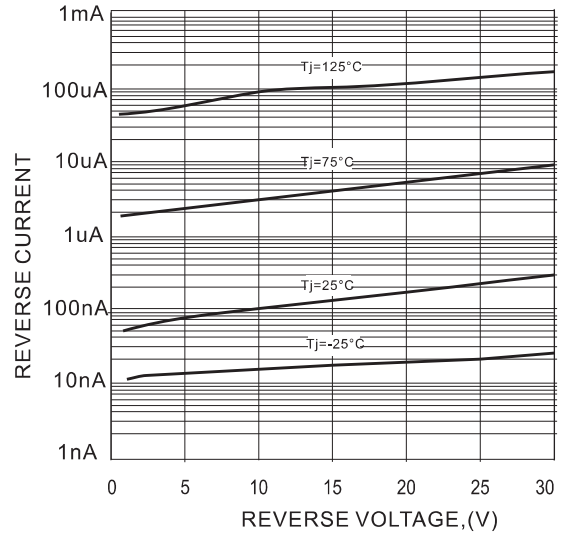


FIG.3-TYPICAL TERMINALS CAPACITANCE

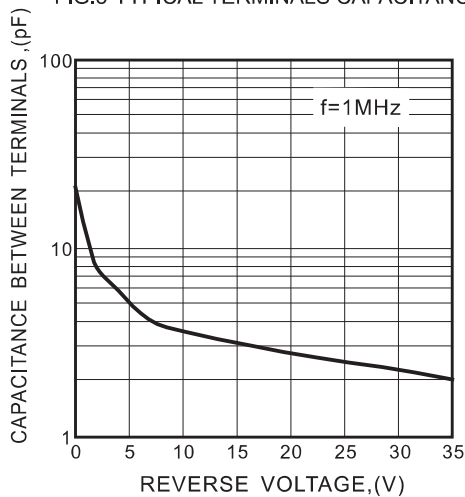
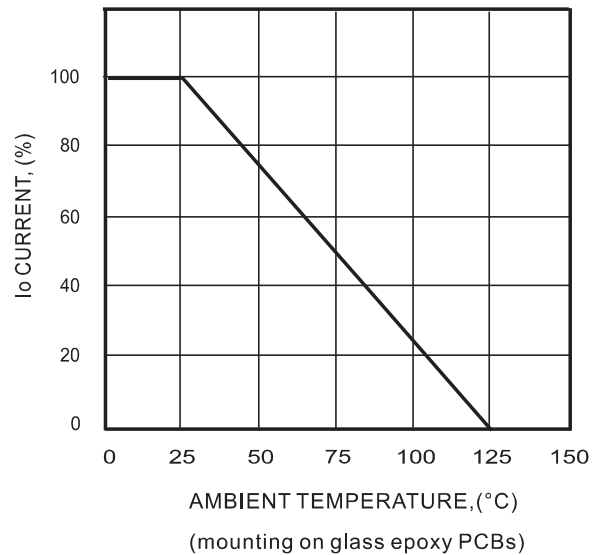




FIG.4- DERATING CURVE



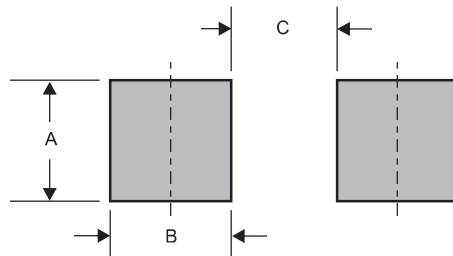
### Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

### Marking

Type number	Marking code
RB520S-30	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)