

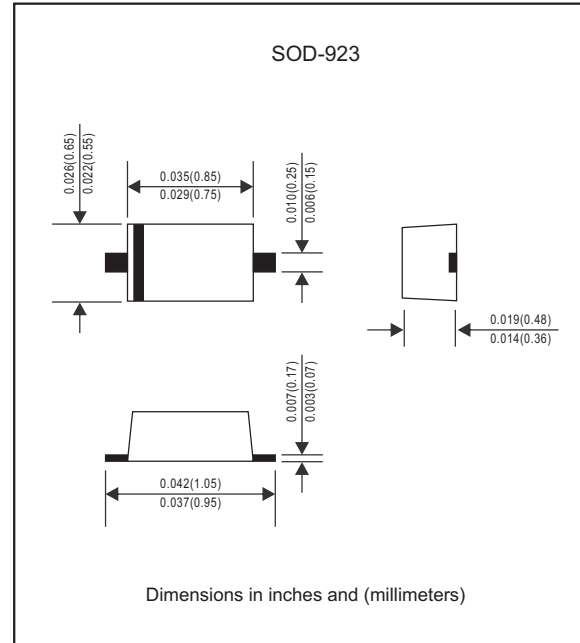
Features

- Silicon Epitaxial Planer
- Low Forward Voltage and Low Reverse Current
- High Reliability
- Schottky Barrier Diodes Encapsulated in a SOD-923 Package
- Lead-free parts meet RoHS requirements.
- Compliant to Halogen-free

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-923
- 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)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
DC Reverse Voltage		V_R			30	V
Mean rectifying current		I_O			100	mA
Forward surge current	60Hz for 1 cycle	I_{FSM}			500	mA
Thermal Resistance	Junction to Ambient	$R_{\theta JA}$		520		$^{\circ}\text{C}/\text{W}$
Power Dissipation		P_D			150	mW
Operating junction temperature range		T_J	-55		+125	$^{\circ}\text{C}$
Storage temperature range		T_{STG}	-55		+125	$^{\circ}\text{C}$

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

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward voltage	$I_F = 10 \text{ mA}$	V_F		0.28	0.35	V
	$I_F = 20 \text{ mA}$	V_F		0.32	0.40	V
Reverse current	$V_R = 10 \text{ V}$	I_R			10	μA
	$V_R = 30 \text{ V}$	I_R			50	μA
Breakdown Voltage	$I_R = 100 \mu\text{A}$	V_{BR}			30	V

Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

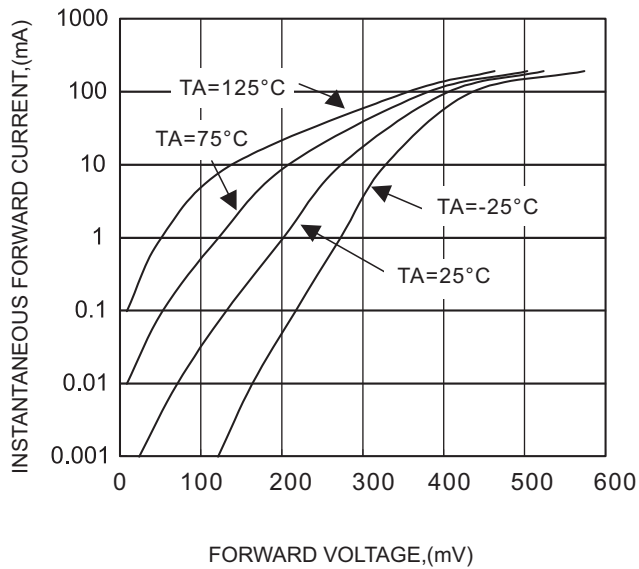


FIG.2 - TYPICAL REVERSE CHARACTERISTICS

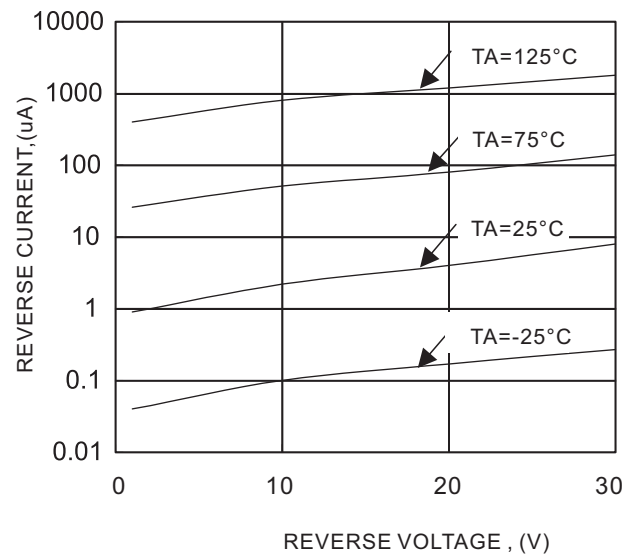
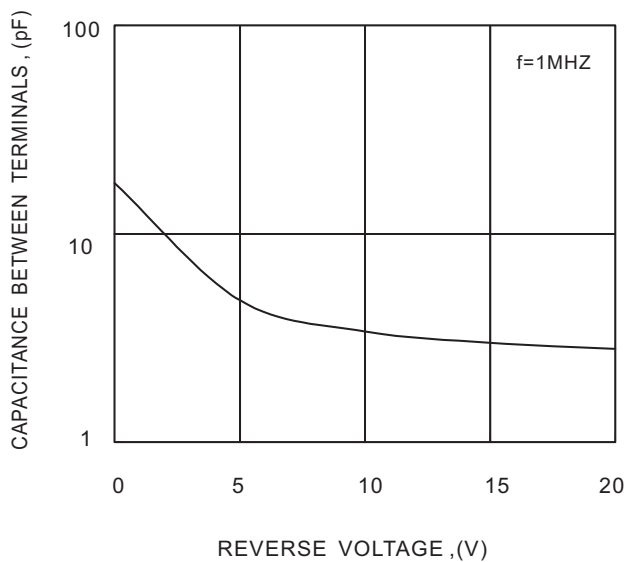


FIG.3-TYPICAL TERMINALS CAPACITANCE



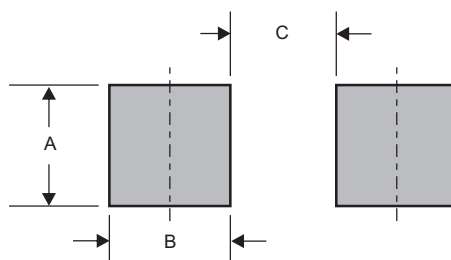
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
TSR521MC-30X	C5

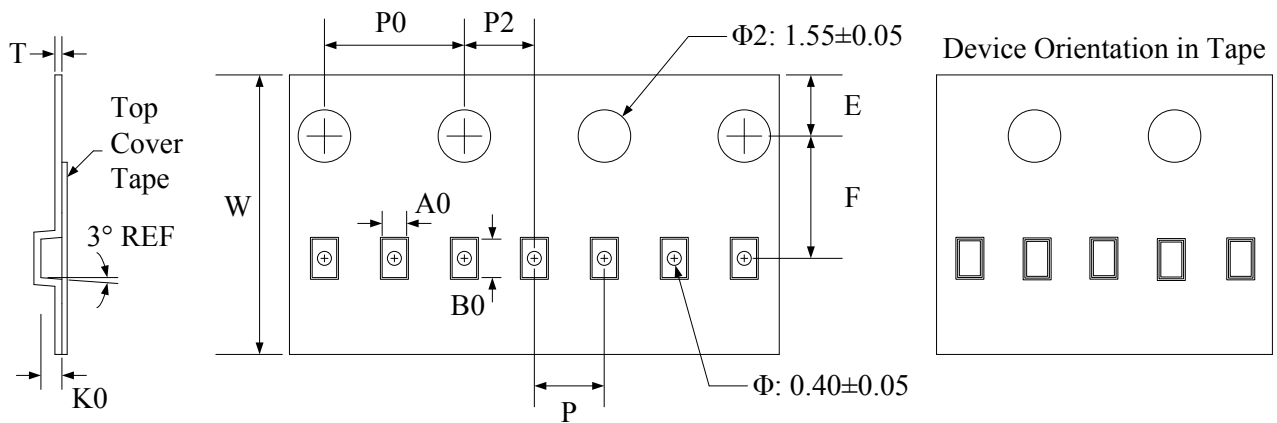
Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-923	0.016 (0.40)	0.012 (0.30)	0.024 (0.60)

Tape and Reel Specification



Symbol	W	A0	B0	K0	E	F	P	P0	P2	T
Dimensions (mm)	8.00 ± 0.1	0.7 ± 0.05	1.15 ± 0.05	0.55 ± 0.05	1.75 ± 0.1	3.5 ± 0.05	2.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.05	0.2 ± 0.05

Ordering Information

Part Number	Quantity Per Reel	Reel Size
TSR521MC-30X	10,000	7 Inch