



SURFACE MOUNT SCHOTTKY DIODE

This device is an extremely fast Schottky diode housed in the ultra-small SOD-523 package. Ideal for applications where board space is at a

FEATURES

- Extremely low V_f
- Low capacitance for reduced insertion losses
- Reverse voltage rating of 30V
- Also available in lead-free plating (100% matte tin finish)

APPLICATIONS

- Mobile phones and accessories
- Hand-held computers
- High speed switching applications



Marking Code: 520

MAXIMUM RATINGS $T_J = 25^\circ\text{C}$ Unless otherwise noted

Rating	Symbol	Value	Units
Peak Reverse Voltage	V_{RM}	30	V
Continuous Reverse Voltage	V_R	30	V
Continuous Forward Current	I_F	200	mA
Non-repetitive Peak Forward Current, 60Hz Half Sine-Wave	I_{FSM}	1	A
Total Power Dissipation (Note 1)	P_{tot}	200	mW
Operating Junction Temperature Range	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150	$^\circ\text{C}$

Note 1. FR-5 Board 1.0 x 0.75 x 0.062 in.

THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Units
Thermal Resistance, Junction to Ambient	R_{thja}	500	$^\circ\text{C/W}$



ELECTRICAL CHARACTERISTICS

T_j = 25°C Unless otherwise noted

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Forward Voltage (Note 2)	V _F	I _F = 200mA	-	-	0.6	V
Reverse Leakage Current	I _R	V _R = 10V	-	-	1.0	uA
Junction Capacitance	C _D	0Vdc Bias, f = 1 MHz	-	21	30	pF

Note 2. Short duration pulse test to avoid self-heating effect

TYPICAL CHARACTERISTIC CURVES

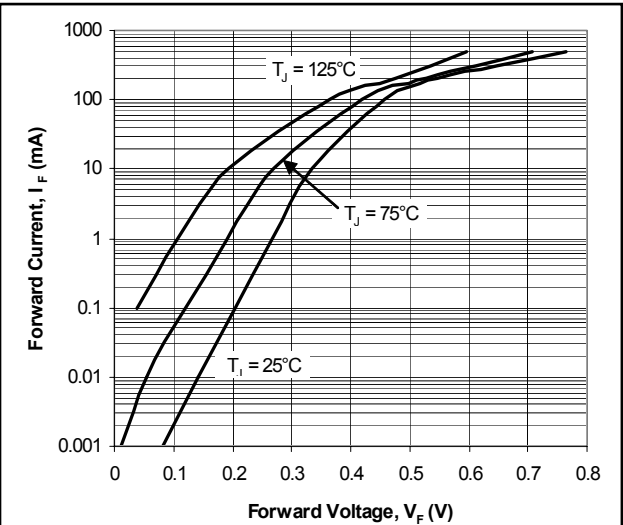


Fig. 1. Typical Forward Characteristics

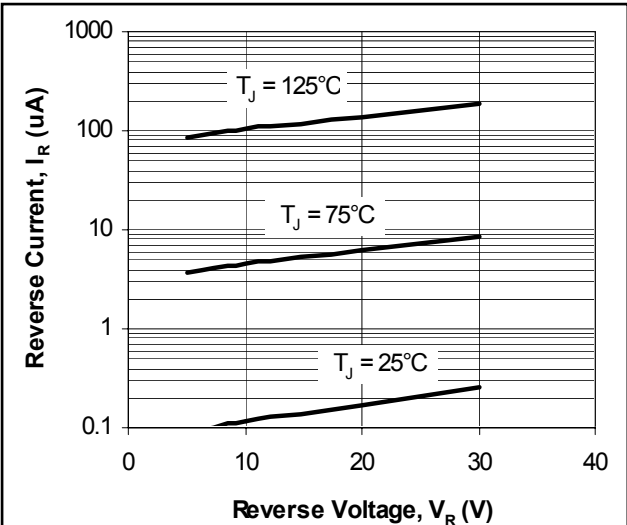


Fig. 2. Typical Reverse Characteristics

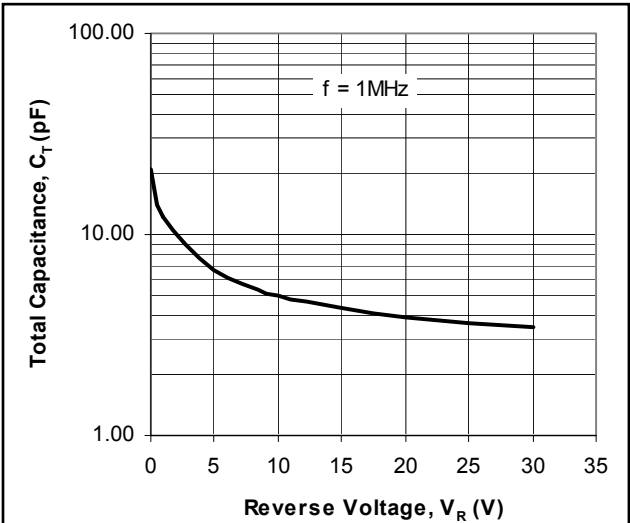
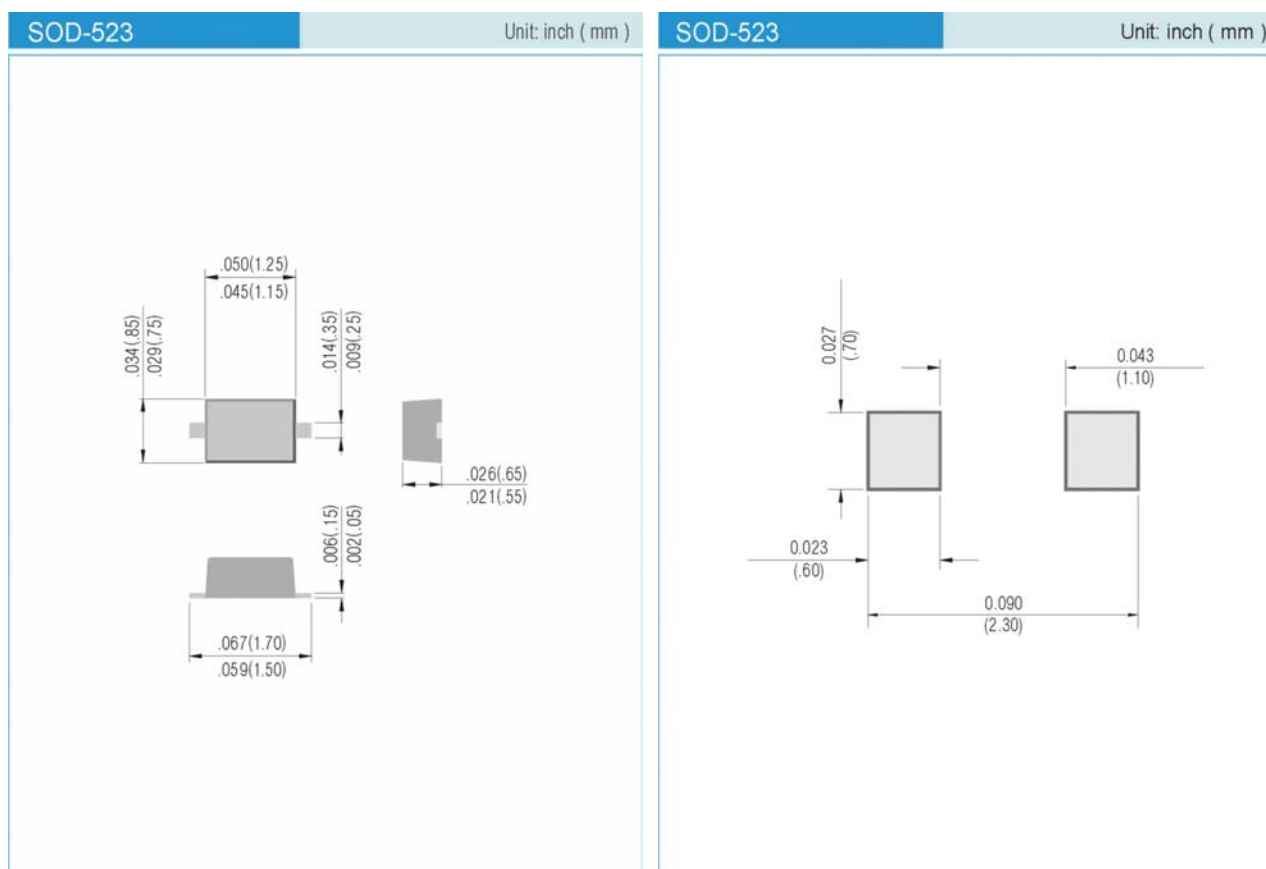


Fig. 3. Typical Capacitance



PACKAGE LAYOUT AND SUGGESTED PAD DIMENSIONS



ORDERING INFORMATION

RB520S30 T/R7 - 7" reel, 3K units per reel

RB520S30 T/R13 - 13" reel, 10K units per reel

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