



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 Vf
- 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	$^{\circ}\text{C}/\text{W}$



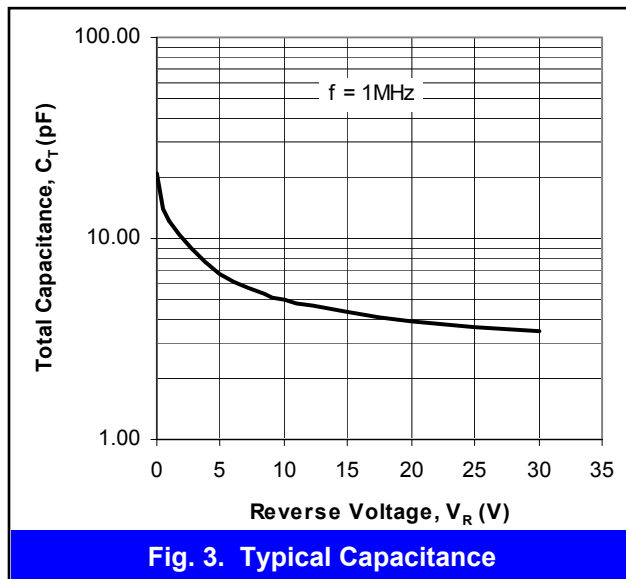
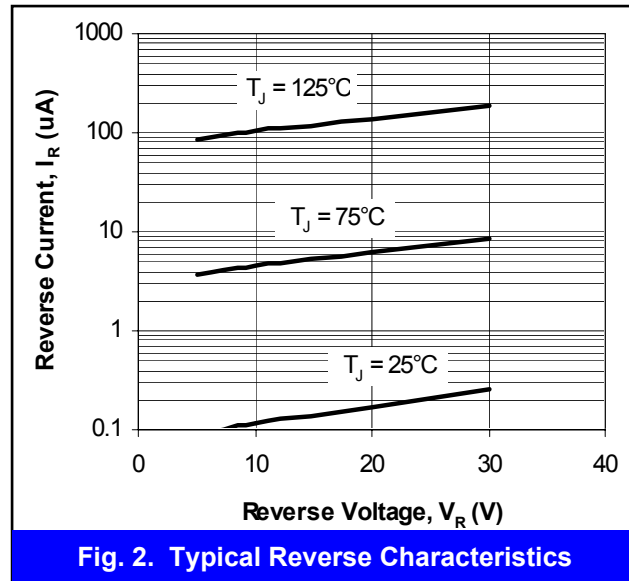
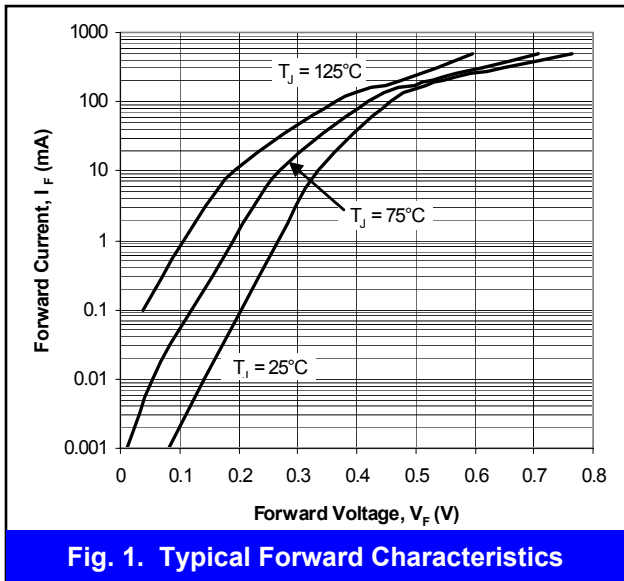
ELECTRICAL CHARACTERISTICS

$T_j = 25^\circ\text{C}$ Unless otherwise noted

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Forward Voltage (Note 2)	V_F	$I_F = 200\text{mA}$	-	-	0.6	V
Reverse Leakage Current	I_R	$V_R = 10\text{V}$	-	-	1.0	μA
Junction Capacitance	C_D	0Vdc Bias, $f = 1\text{MHz}$	-	21	30	pF

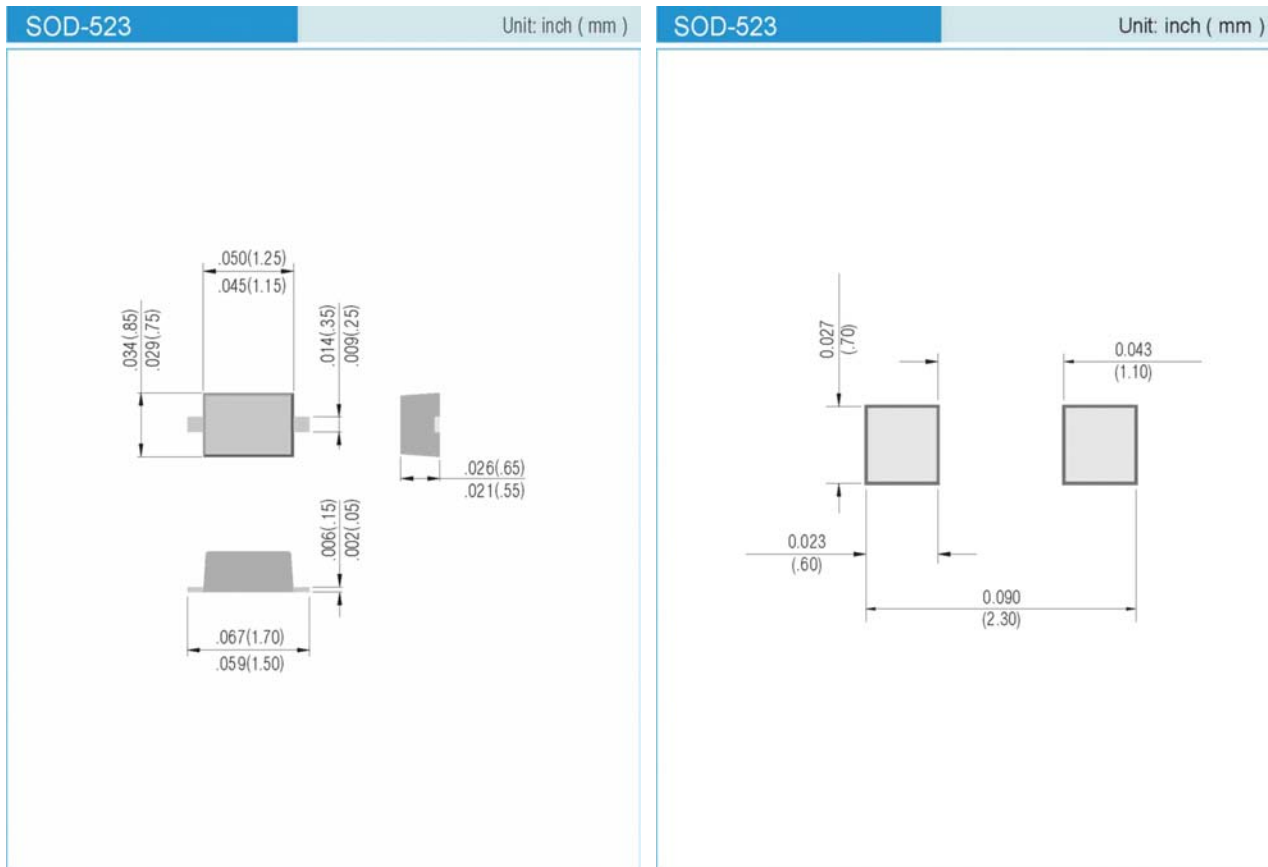
Note 2. Short duration pulse test to avoid self-heating effect

TYPICAL CHARACTERISTIC CURVES





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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