



## 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: 521

### 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	$^\circ\text{C}/\text{W}$



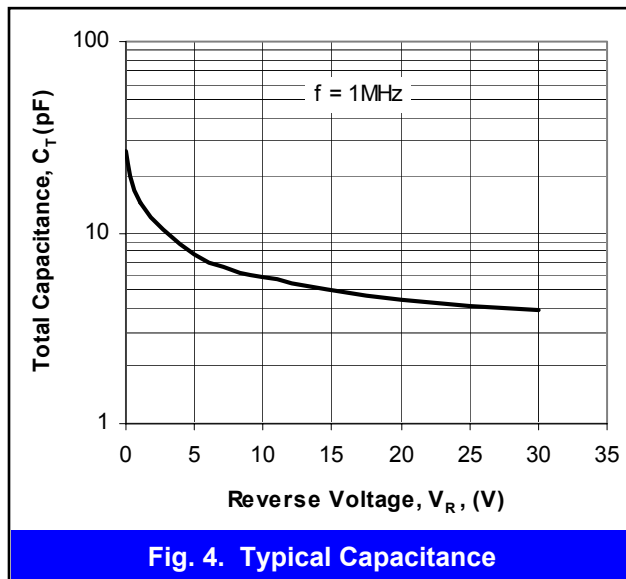
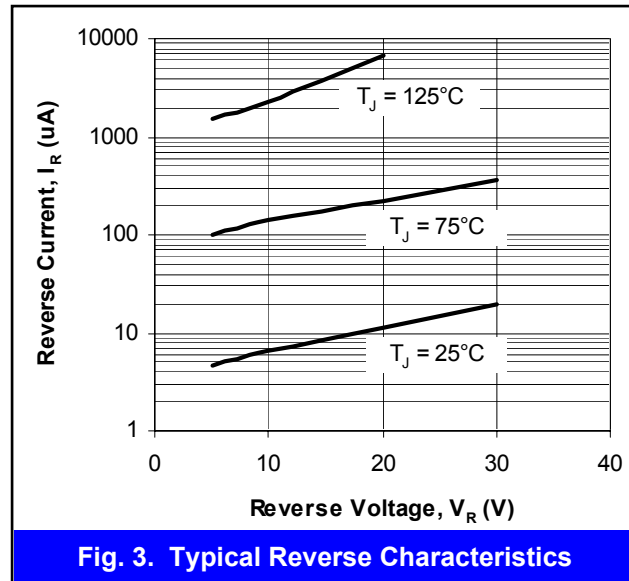
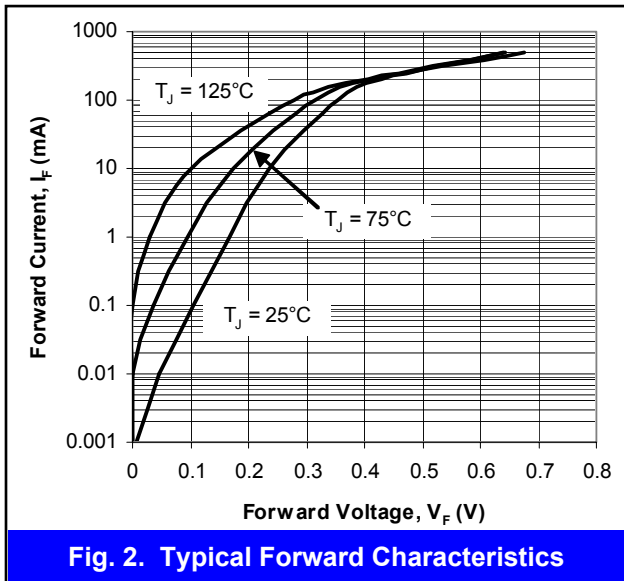
## ELECTRICAL CHARACTERISTICS

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

Parameter	Symbol	Conditions	Min	Typ	Max	Units
Forward Voltage (Note 2)	$V_F$	$I_F = 200\text{mA}$	-	-	0.5	V
Reverse Leakage Current	$I_R$	$V_R = 10\text{V}$	-	-	30	$\mu\text{A}$
Total Capacitance	$C_T$	0Vdc Bias, $f = 1\text{MHz}$	-	26.6	35	pF

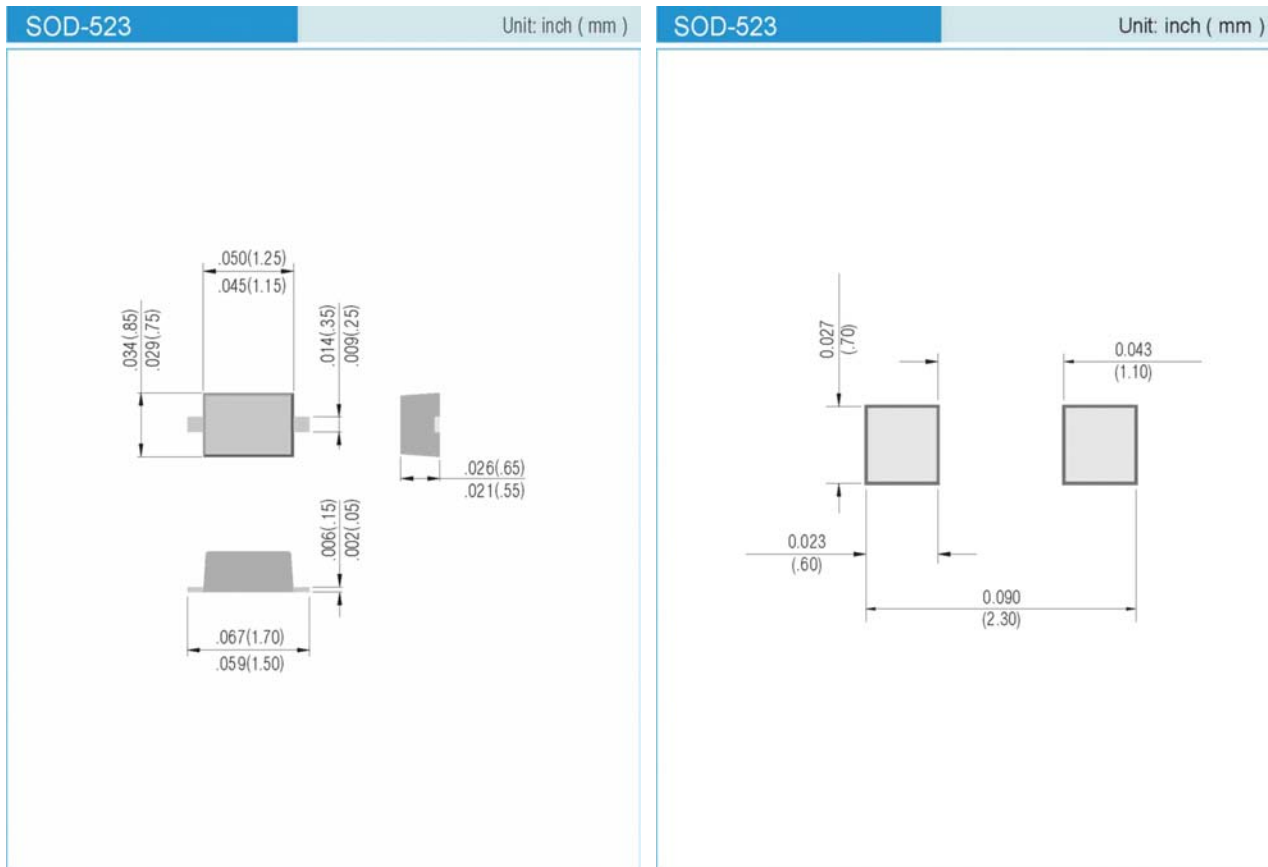
Note 2. Short duration pulse test to avoid self-heating effect

## TYPICAL CHARACTERISTIC CURVES





## PACKAGE LAYOUT AND SUGGESTED PAD DIMENSIONS



## ORDERING INFORMATION

RB521S30 T/R7 - 7" reel, 3K units per reel

RB521S30 T/R13 - 13" reel, 10K units per reel

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