



### 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** $T_J = 25^{\circ}C$ Unless otherwise noted

Rating	Symbol	Value	Units
Peak Reverse Voltage	$V_{RM}$	30	V
Continuous Reverse Voltage	V <sub>R</sub>	30	V
Continuous Forward Current	I <sub>F</sub>	200	mA
Non-repetitive Peak Forward Current, 60Hz Half Sine-Wave	I <sub>FSM</sub>	1	А
Total Power Dissipation (Note 1)	P <sub>tot</sub>	200	mW
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>stg</sub>	-55 to +150	°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 <sub>thja</sub>	500	°C/W





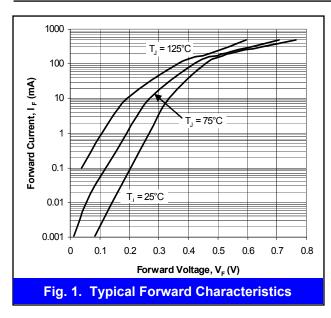
#### **ELECTRICAL CHARACTERISTICS**

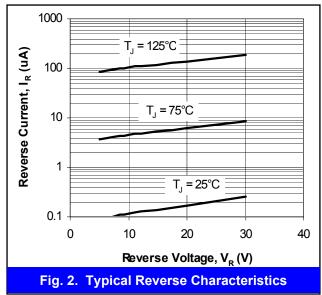
Tj = 25°C Unless otherwise noted

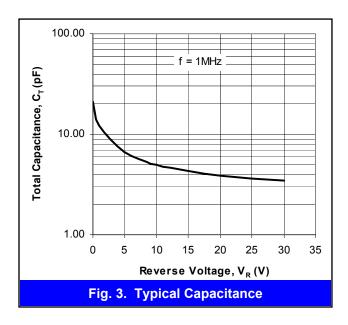
Parameter	Symbol	Conditions	Min	Тур	Max	Units
Forward Voltage (Note 2)	V <sub>F</sub>	I <sub>F</sub> = 200mA	-	-	0.6	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 10V	-	-	1.0	uA
Junction Capacitance	C <sub>D</sub>	0Vdc Bias, f =1 MHz	-	21	30	pF

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

### TYPICAL CHARACTERISTIC CURVES



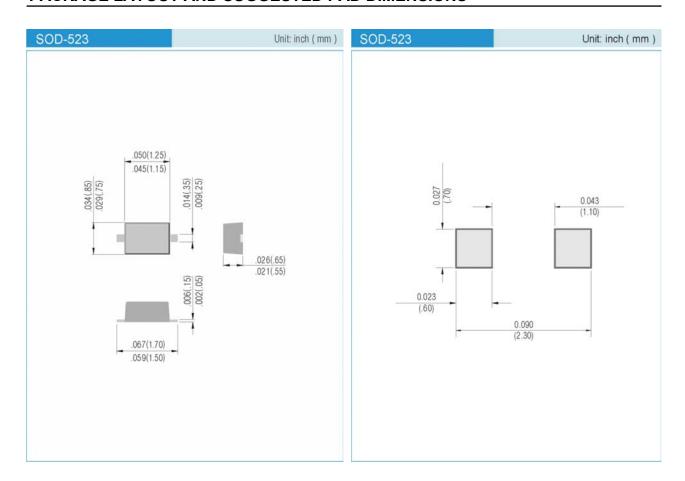








## PACKAGE LAYOUT AND SUGGESTED PAD DIMENSIONS



#### ORDERING INFORMATION

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

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

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8/25/2005 Page 3 www.panjit.com