RB520S40

SCHOTTKY BARRIER DIODE

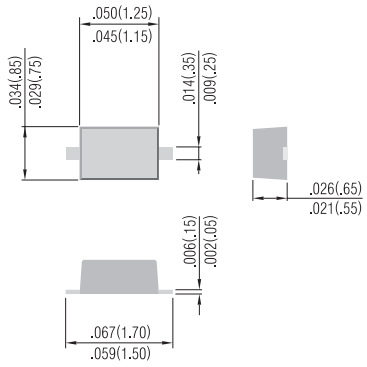
FEATURES

- Low Forward Voltage Drop
- Guard Ring Construction for Transient Protection
- Negligible Reverse Recovery Time
- Low Reverse Capacitance
- Ultra-Small Mount Package
- In compliance with EU RoHS 2002/95/EC directives

MECHANICAL DATA

- Case: SOD-523, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Appox Weight : 0.008 gram
- Marking : D1

SOD-523 Unit: inch (mm)



MAXIMUM RATINGS@T_A=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Forward Continuous Current (Note 1)	I_{FM}	250	mA
Non-Repetitive Peak Forward Surge Current@t≤1.0s	I_{FSM}	1.0	A

THERMAL CHARACTERISTICS@T_A=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	P_D	150	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\Theta JA}$	667	°C/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to +125	°C

Notes : 1.Part mounted on FR-4 board with recommended pad layout

2.Short duration pulse test used so as to minimize self-heating effect

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ELECTRICAL CHARACTERISTICS@T_A=25°C unless otherwise specified

Characteristic	Test Conditions	Symbol	Min	Typ	Max	Unit
Reverse Breakdown Voltage (Note 2)	I_R=10μA	$V_{BR(R)}$	40	-	-	V
Forward Voltage Drop	I_F=20mA I_F=200mA	V_F	-	-	0.37 0.60	V
Peak Reverse Current (Note 2)	V_R=30V V_R=10V	I_R	-	-	5 1	μA
Total Capacitance	V_R=0V,f=1.0MHz	C_T	-	50	-	pF
Reverse Recovery Time	I_F=I_R=200mA, I_{RR}=0.1 x I_R,R_L=100Ω	T_{RR}	-	10	-	ns

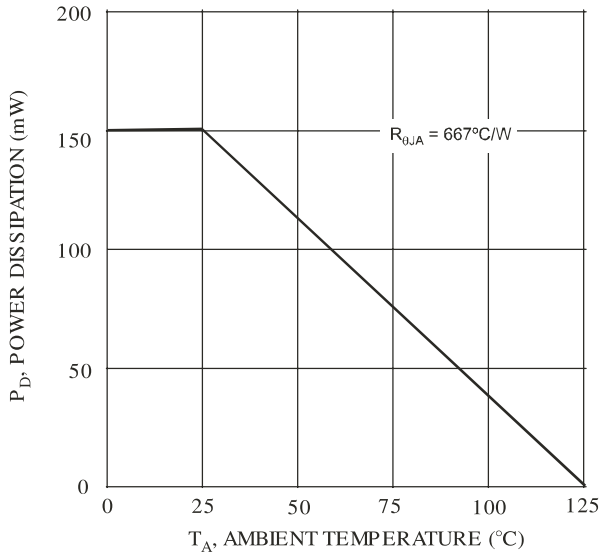


Fig. 1 Derating Curve

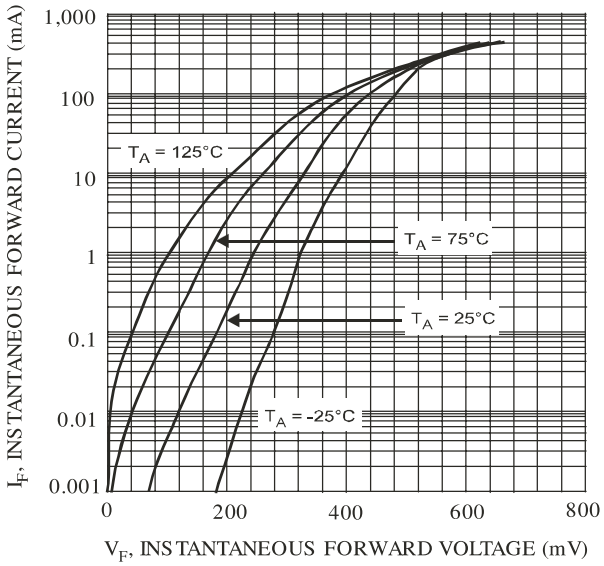


Fig. 2 Typical Forward Characteristics

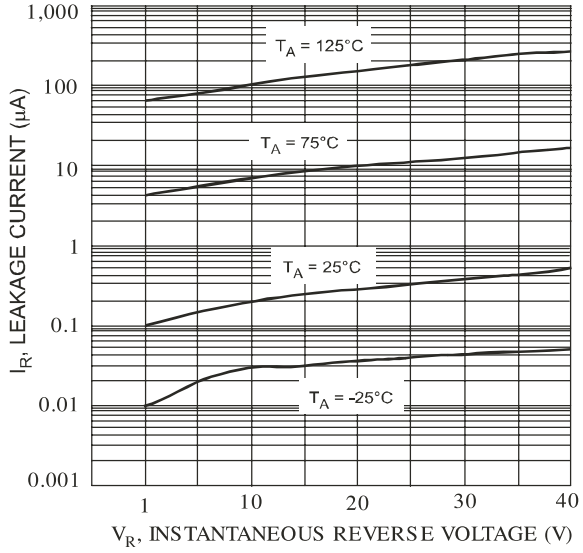


Fig. 3 Typical Reverse Characteristics

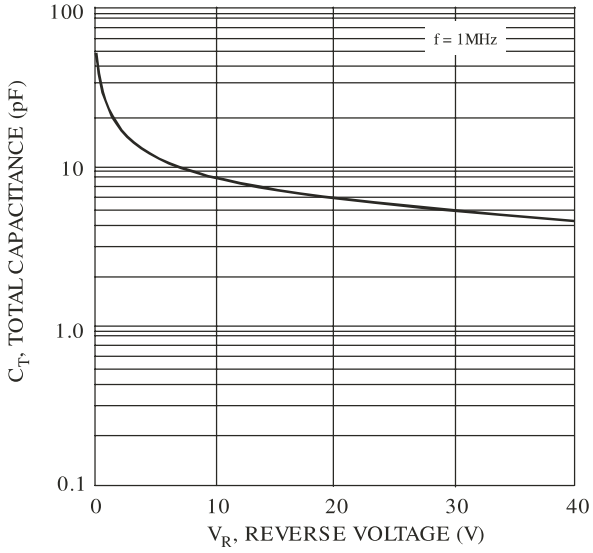
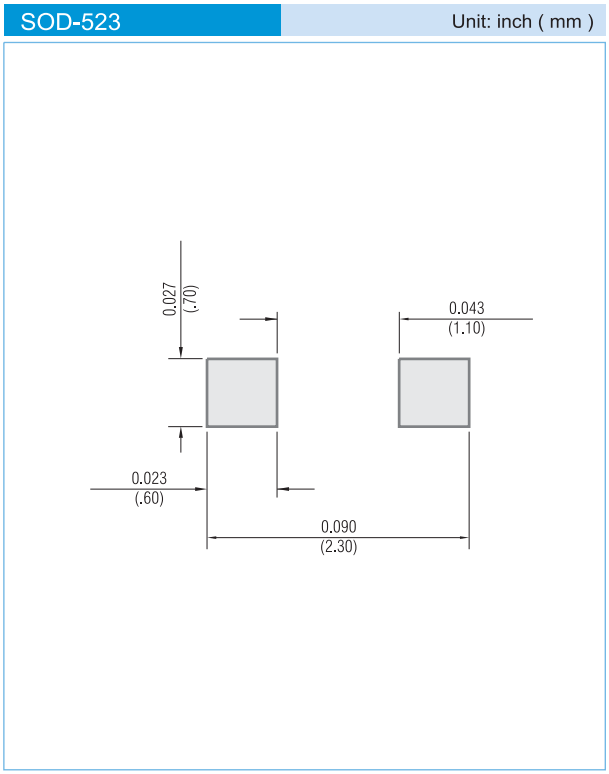


Fig. 4 Typ. Total Capacitance vs. Reverse Voltage

MOUNTING PAD LAYOUT

SOD-523 Unit: inch (mm)



ORDER INFORMATION

T/R - 5K per 7" plastic Reel