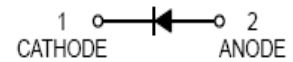


**Features**

- Low forward voltage drop
- Fast switching
- PN junction guard ring for transient and ESD protection



SOD-523



Schematic Diagram

**Absolute Maximum Ratings** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

Parameter	Symbol	Limits	Unit
DC Reverse Voltage	$V_R$	30	V
Continuous Forward Current	$I_F$	200	mA
Peak Forward Surge Current	$I_{FSM}$	600	mA
Total Power Dissipation	$P_{tot}$	200	mW
Total Resistance Junction to Ambient	$R_{\theta JA}$	635	$^{\circ}\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$

**Electrical Characteristics** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Reverse Breakdown Voltage	$V_{(BR)R}$	30			V	$I_R=100\mu\text{A}$
Forward Voltage	$V_F$		0.22	0.24	V	$I_F=0.1\text{mA}$
			0.41	0.5		$I_F=30\text{mA}$
			0.52	0.8		$I_F=100\text{mA}$
			0.29	0.32		$I_F=1.0\text{mA}$
			0.35	0.40		$I_F=10\text{mA}$
Reverse Current	$I_R$		0.5	2.0	$\mu\text{A}$	$V_R=25\text{V}$
Diode Capacitance	$C_d$		7.6	10	pF	$V_R=1\text{V}, f=1\text{MHz}$
Reverse Recovery Time	$t_{rr}$			5	ns	$I_F=I_R=10\text{mA}$

**Typical Electrical Characteristic Curves**

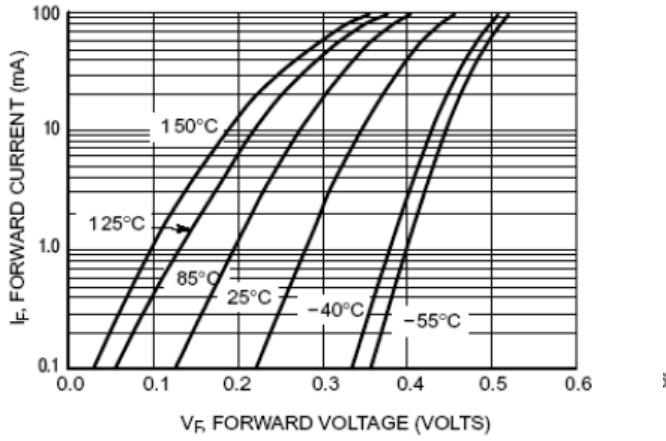


Figure 1. Forward Voltage

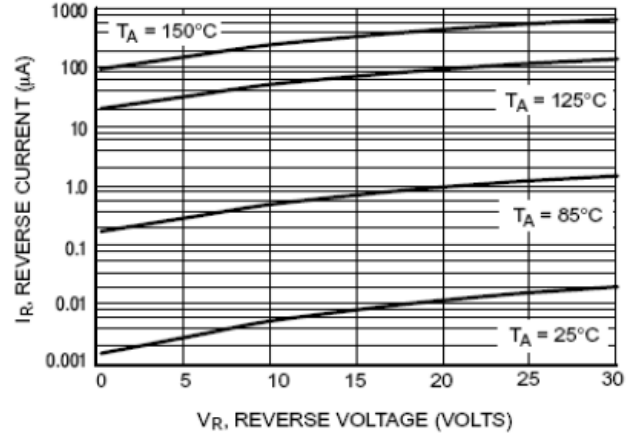


Figure 2. Leakage Current

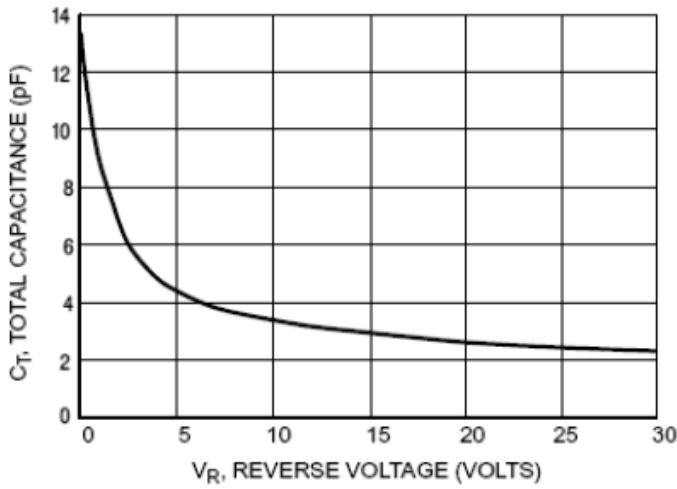
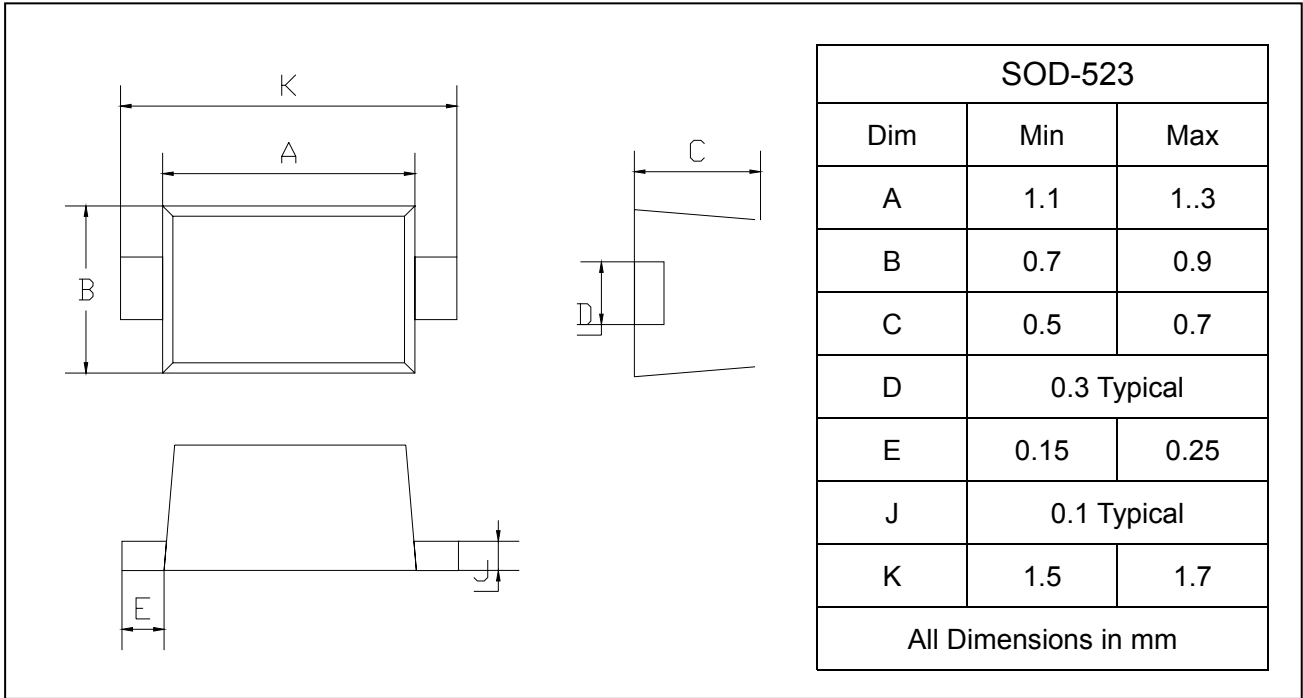


Figure 3. Total Capacitance

**Package Outline Dimensions**    SOD-523



**Marking and Ordering Information**

Device	Package	Carrier	Quantity	Marking
GSBAT54X	SOD-523	Tape & Reel	8,000pcs / Reel	JV