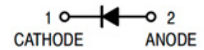


Features

- Low leakage current losses
- Negligible switching losses
- Low forward and reverse recovery times
- Extremely fast switching
- Low capacitance diode
- Halogen and Antimony Free (HAF), RoHS compliant



SOD-523



Schematic Diagram

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	100	V
Reverse Voltage	V _R	80	V
Average Forward Rectified Current	I _{F(AV)}	200	mA
Peak Forward Surge Current (t _p =10ms)	I _{FSM}	1	A
Power Dissipation	P _D	200	mW
Max. Thermal Resistance from Junction to Ambient ¹	R _{θJA}	500	°C/W
Junction Temperature	T _J	125	°C
Storage Temperature Range	T _{STG}	-65 to +150	°C

Note:

1. Device mounted on FR-4 substrate PC board, with minimum recommended pad layout.

Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	V _{(BR)R}	I _R =100μA	80	-	-	V
Forward Voltage	V _F	I _F =1mA	-	-	0.45	V
		I _F =200mA	-	-	1	
Reverse Current	I _R	V _R =50V	-	-	1	μA
		V _R =50V, T _J =100°C	-	30	-	
Total Capacitance	C _T	V _R =1V, F=1MHz	-	-	10	pF

Electrical Characteristic Curves

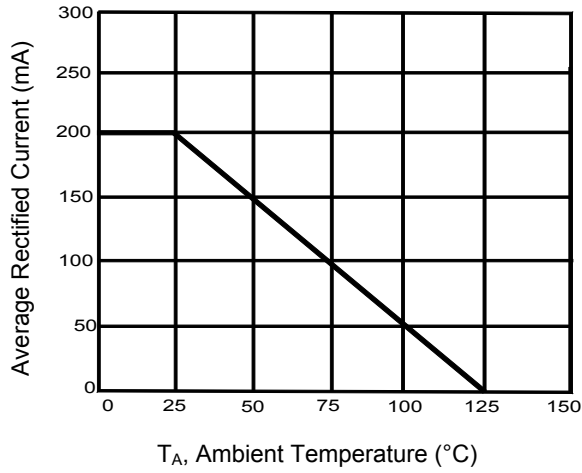


Figure 1. Average Current Derating Curve

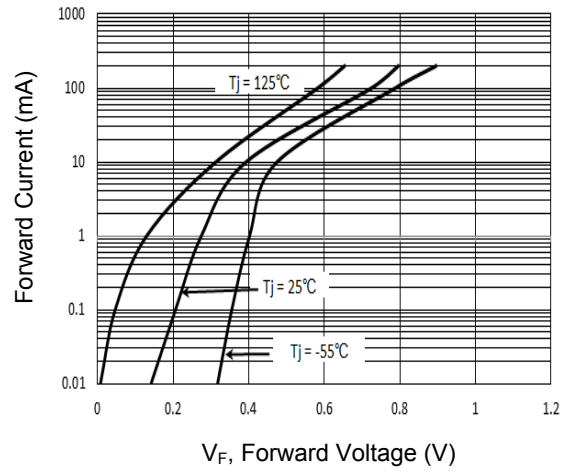


Figure 2. Forward Characteristic Curve

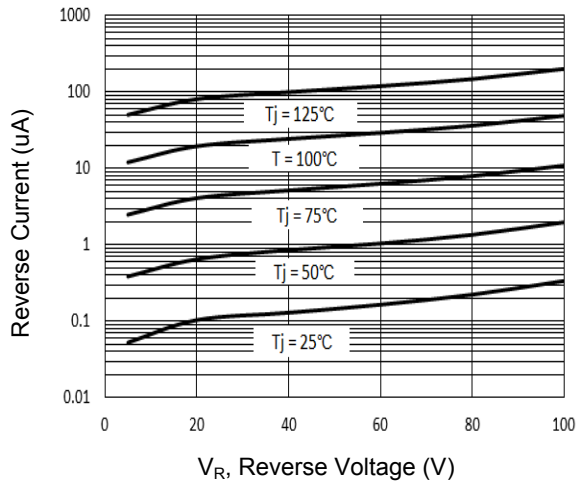


Figure 3. Reverse Characteristic Curve

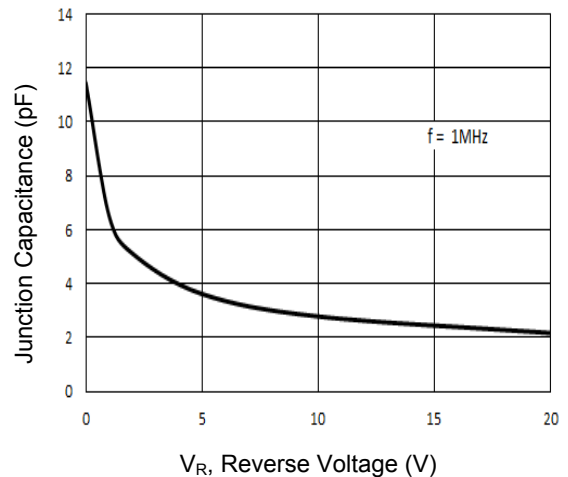
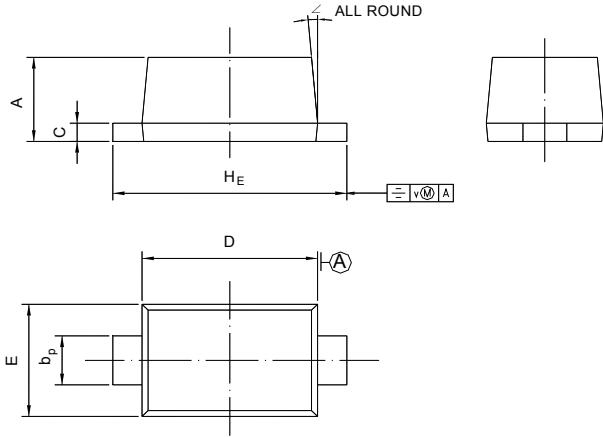


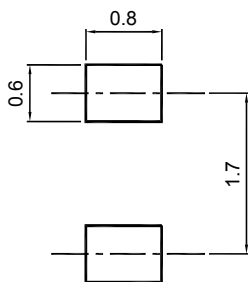
Figure 4. Junction Capacitance

Package Outline Dimension (SOD-523)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.600	0.700	0.024	0.028
b _p	0.300	0.400	0.012	0.016
C	0.100	0.135	0.004	0.005
D	1.150	1.250	0.045	0.049
E	0.750	0.850	0.030	0.033
H _E	1.500	1.700	0.059	0.067
V	0.100 REF		0.004 REF	
∠	5° REF		5° REF	

Recommended Pad Layout



Note:
 1. Unit: mm

Order Information

Device	Package	Marking	Carrier	Quantity
GSBAT41M	SOD-523	TP	Tape & Reel	4,000pcs / Reel

For more information, please contact us at: inquiry@goodarksemi.com