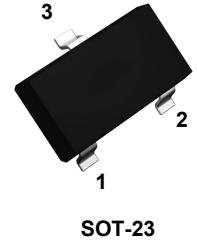


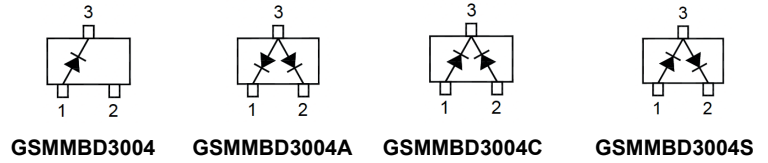
Features

- Fast switching speed
- High conductance
- High reverse breakdown voltage rating
- Surface mount package ideally suited for automatic insertion



Applications

Small signal switching



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

Parameter	Symbol	Value	Unit	
Repetitive Peak Reverse Voltage	V_{RRM}	350	V	
Working Peak Reverse Voltage	V_{RWM}	300	V	
DC Blocking Voltage	V_R	300	V	
RMS Reverse Voltage	$V_{R(RMS)}$	212	V	
Continuous Forward Current	I_F	225	mA	
Peak Repetitive Forward Current	I_{FRM}	625	mA	
Non-Repetitive Peak Forward Surge Current	I_{FSM}	$t=1.0\mu\text{s}$	4	A
		$t=1.0\text{s}$	1	A
Power Dissipation	P_D	350	mW	
Thermal Resistance Junction to Ambient ¹	$R_{\theta JA}$	357	$^{\circ}\text{C/W}$	
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	$^{\circ}\text{C}$	

Note: 1. Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout.

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=100\mu\text{A}$	350	-	-	V
Reverse Current	I_R	$V_R=240\text{V}$	-	-	100	nA
		$V_R=240\text{V}, T_J=150^{\circ}\text{C}$	-	-	100	μA
Forward Voltage	V_F	$I_F=20\text{mA}$	-	-	0.87	V
		$I_F=100\text{mA}$	-	-	1.0	
		$I_F=200\text{mA}$	-	-	1.25	
Total Capacitance	C_T	$V_R=0\text{V}, F=1\text{MHz}$	-	-	5.0	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=30\text{mA}, I_{rr}=0.1I_R, R_L=100\Omega$	-	-	50	nS

Typical Electrical and Thermal Characteristic Curves

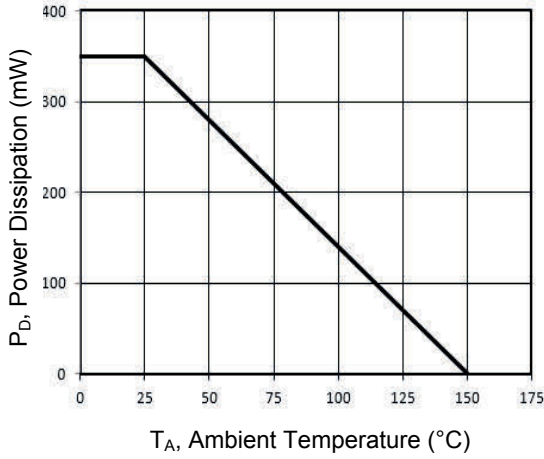


Figure 1. Power Derating Curve

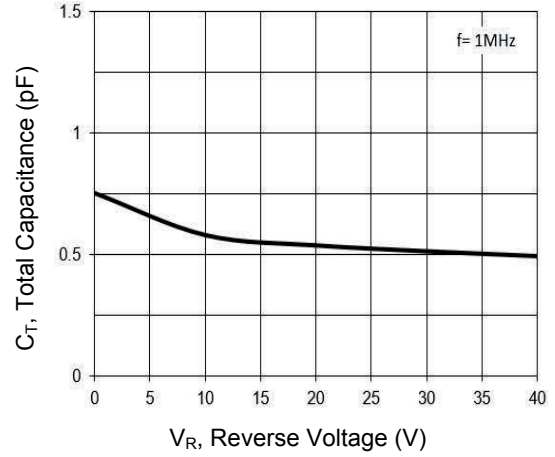


Figure 2. Total Capacitance vs. Reverse Voltage

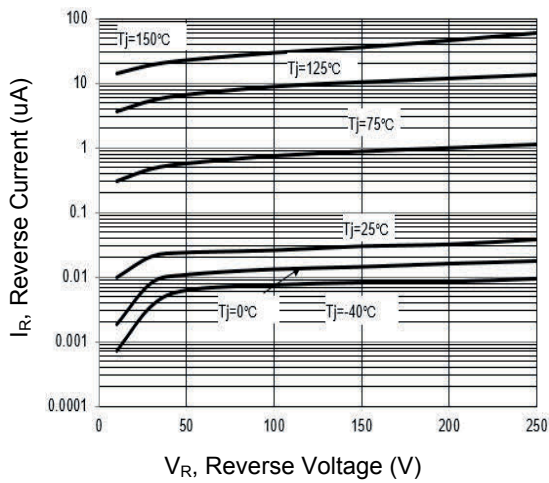


Figure 3. Reverse Characteristics

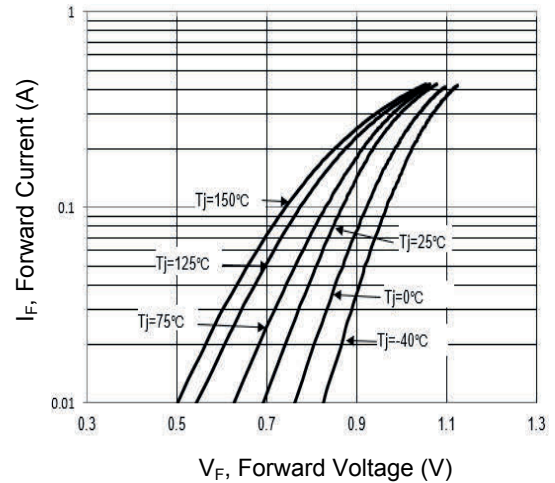
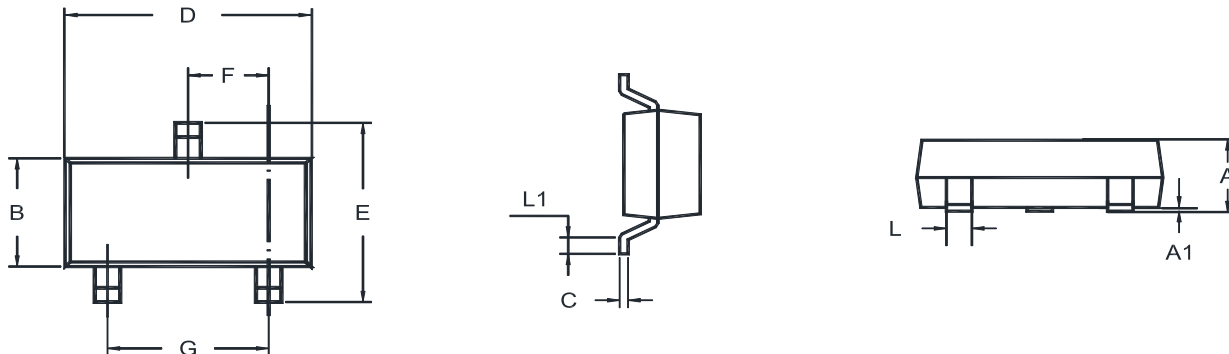


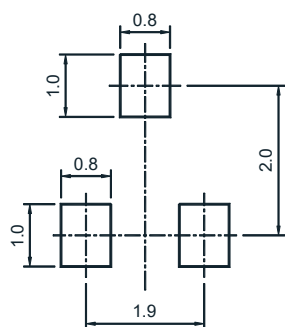
Figure 4. Forward Characteristics

Package Outline Dimensions (SOT-23)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.890	1.200	0.035	0.047
A1	0.013	0.100	0.001	0.004
B	1.200	1.400	0.047	0.055
C	0.080	0.190	0.003	0.007
D	2.800	3.040	0.110	0.120
E	2.200	2.600	0.087	0.102
F	0.890	1.020	0.035	0.040
G	1.780	2.040	0.070	0.080
L	0.370	0.510	0.015	0.020
L1	0.200 MIN		0.008 MIN	

Recommended Pad Layout



Unit: mm

Order Information

Device	Package	Marking	Packaging	SPQ
GSMMBD3004A	SOT-23	KAD	Tape & Reel	3,000 pcs / Reel
GSMMBD3004C	SOT-23	KAC	Tape & Reel	3,000 pcs / Reel
GSMMBD3004S	SOT-23	KAE	Tape & Reel	3,000 pcs / Reel
GSMMBD3004	SOT-23	HC	Tape & Reel	3,000 pcs / Reel

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