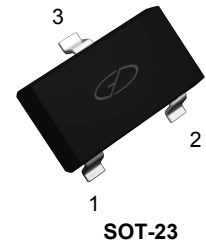


Features

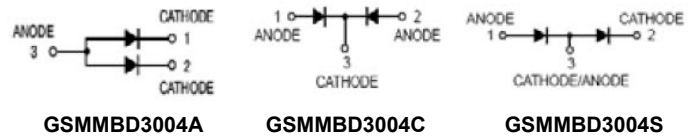
- Fast switching speed
- High conductance
- High reverse breakdown voltage rating
- Surface mount package ideally suited for automatic insertion



SOT-23

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	
Continuous Reverse Voltage	V_R	300	V	
RMS Reverse Voltage	$V_{R(RMS)}$	212	V	
Forward Continuous 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 Air	$R_{\theta JA}$	357	$^\circ\text{C/W}$	
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	$^\circ\text{C}$	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse Breakdown Voltage	$V_{(BR)R}$	$I_R=150\mu\text{A}$	350	-	-	V
Reverse Voltage Leakage Current	I_R	$V_R=240\text{V}$	-	30	100	nA
		$V_R=240\text{V}, T_J=150^\circ\text{C}$	-	35	100	μA
Forward Voltage	V_F	$I_F=20\text{mA}$	-	0.78	0.87	V
		$I_F=100\text{mA}$	-	0.93	1.0	
		$I_F=200\text{mA}$	-	1.03	1.25	
Total Capacitance	C_T	$V_R=0\text{V}, F=1\text{MHz}$	-	1.0	5.0	pF
Reverse Recovery Time	t_{rr}	$I_F=I_R=30\text{mA}, I_{rr}=0.1 \times I_R, R_L=100\Omega$	-	-	50	nS

Typical Electrical and Thermal Characteristic Curves

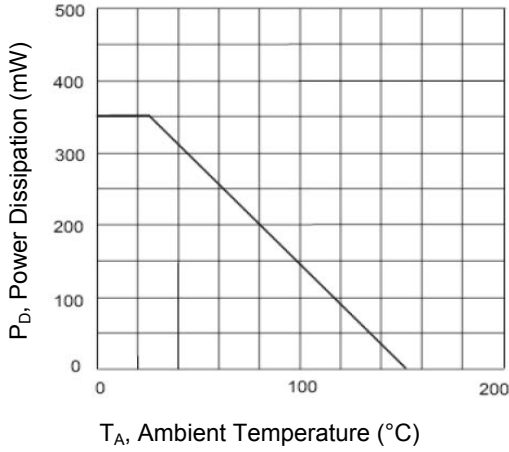


Figure 1. Max Power Dissipation vs. Ambient Temperature

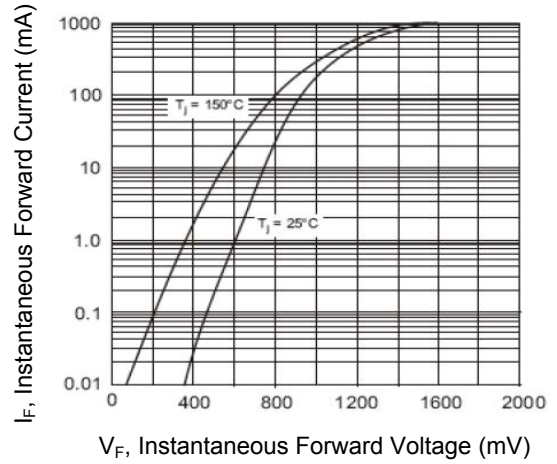


Figure 2. Typical Forward Characteristics, per element

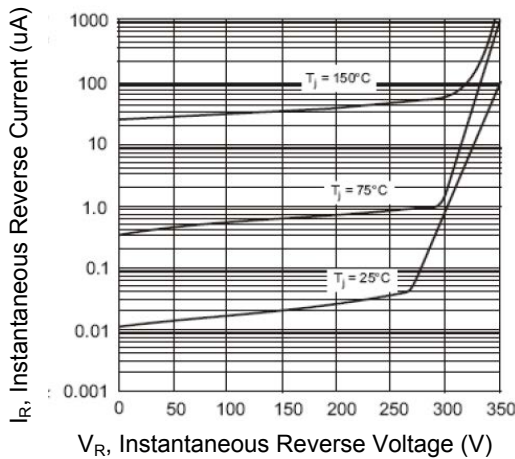


Figure 3. Typical Reverse Characteristics, per element

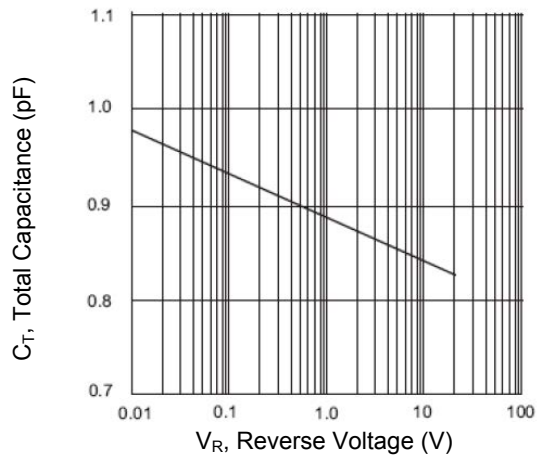
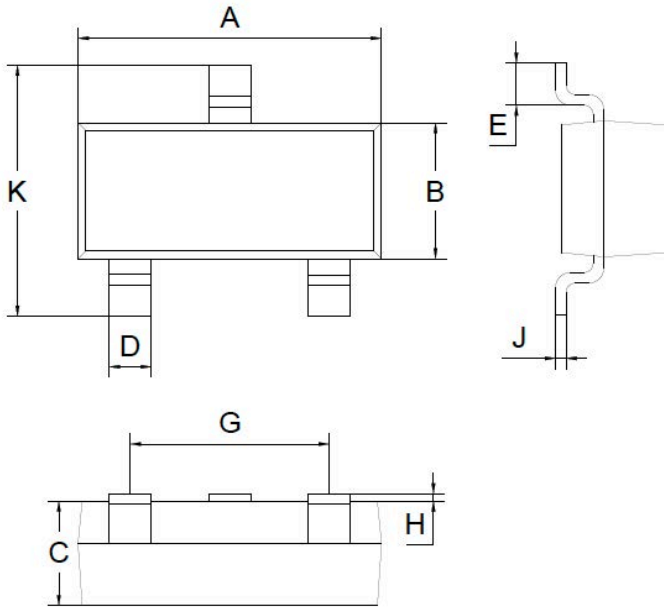


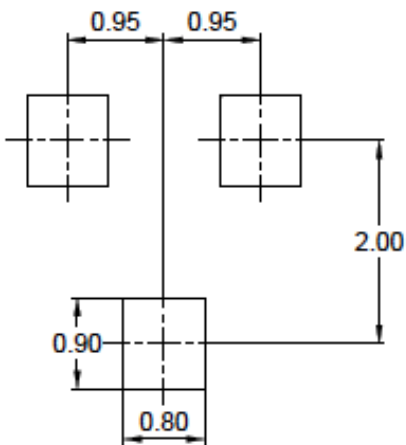
Figure 4. Typical Total Capacitance vs. Reverse Voltage, per element

Package Outline Dimensions (SOT-23)



Symbol	Dimensions in Millimeters	
	Min	Max
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.30	0.50
E	0.35	0.48
G	1.80	2.00
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60

Recommended Pad Layout



Unit: mm

Order Information

Device	Package	Marking	Carrier	QTY
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