

Features

- Fast switching speed
- Ultra-small surface mount package
- For general purpose switching applications
- High conductance



Schematic Diagram

DFN0603

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

Parameter	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	80	V
Average Rectified Forward Current	$I_{F(AV)}$	125	mA
Forward Continuous Current	I_{FM}	250	mA
Non-Repetitive Peak Forward Surge Current at $t=1\mu\text{s}$	I_{FSM}	2	A
Non-Repetitive Peak Forward Surge Current at $t=100\text{ms}$		1	
Power Dissipation	P_{tot}	150	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	833	$^{\circ}\text{C/W}$
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	Conditions	Min.	Max.	Unit
Reverse Breakdown Voltage	V_R	$I_R=1\mu\text{A}$	80	-	V
Forward Voltage	V_F	$I_F=1\text{mA}$	-	0.715	V
		$I_F=10\text{mA}$	-	0.855	
		$I_F=50\text{mA}$	-	1	
		$I_F=150\text{mA}$	-	1.25	
Peak Reverse Current	I_R	$V_R=75\text{V}$	-	1	μA
		$V_R=20\text{V}$	-	25	nA
		$V_R=75\text{V}, T_J=150^{\circ}\text{C}$	-	50	μA
		$V_R=25\text{V}, T_J=150^{\circ}\text{C}$	-	30	μA
Total Capacitance	C_T	$V_R=0\text{V}, f=1\text{MHz}$	-	2	pF
Reverse Recovery Time	t_{rr}	$I_F=10\text{mA}, V_R=6\text{V}, R_L=100\Omega, I_{rr}=0.1 \times I_R$	-	4	ns

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise specified)

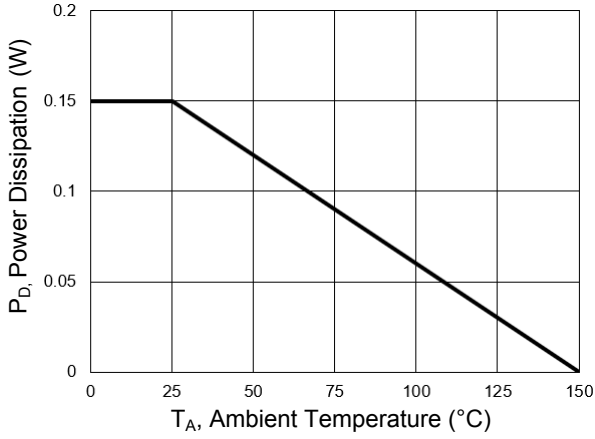


Figure 1. Power Derating Curve

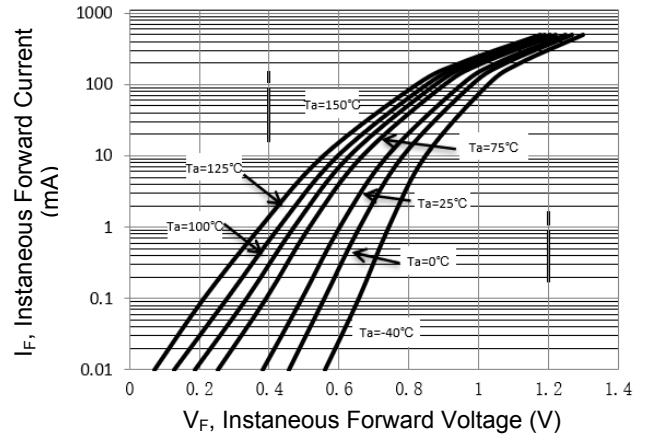


Figure 2. Forward Characteristics

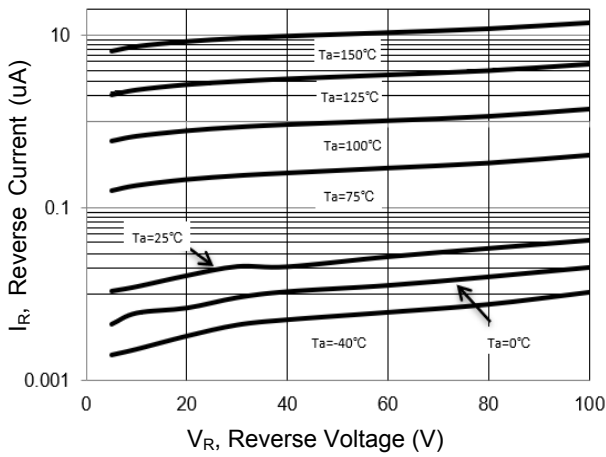


Figure 3. Reverse Characteristics

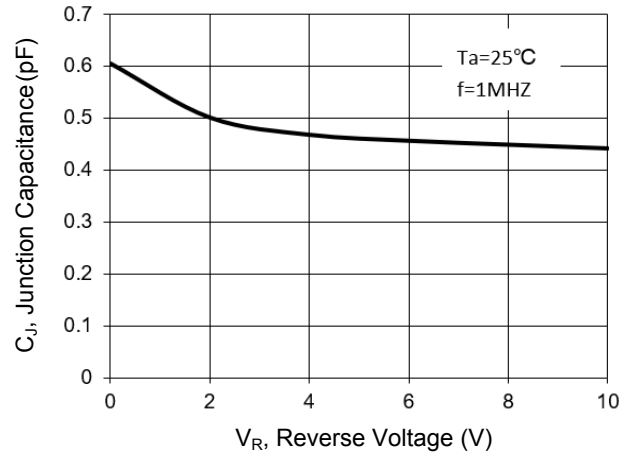
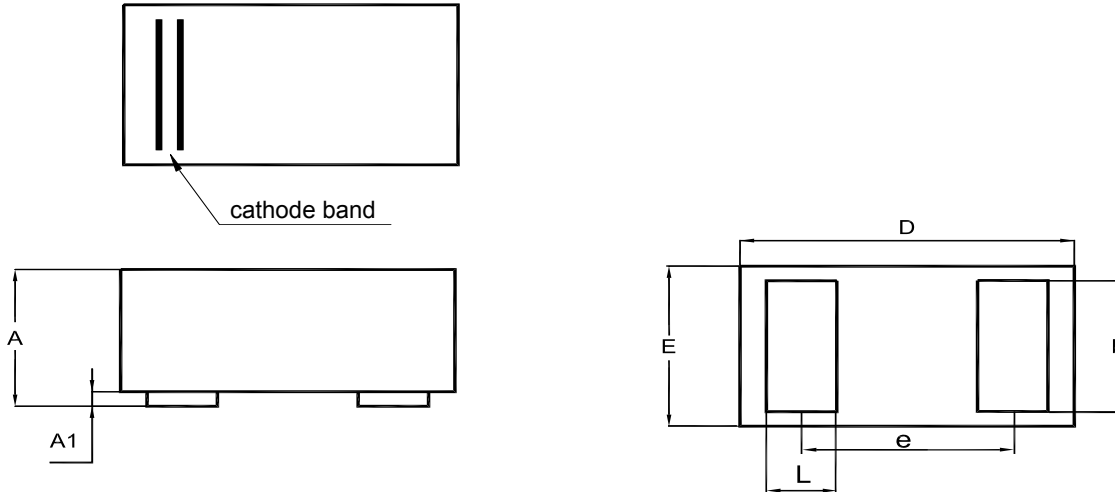


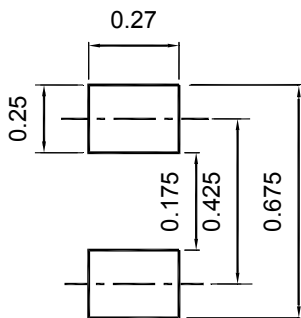
Figure 4. Capacitance Characteristics

Package Outline Dimensions (DFN0603)



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	0.270	0.330	0.011	0.013
A1	0	0.025	0	0.001
b	0.210	0.290	0.008	0.011
D	0.570	0.650	0.022	0.026
E	0.280	0.350	0.011	0.014
e	0.355 Typ		0.014 Typ	
L	0.140	0.220	0.006	0.009

Recommended Pad Layout



Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

Order Information

Device	Package	Marking Code	Carrier	Quantity
GSBAS116LP	DFN0603	S3	Tape & Reel	10,000 pcs / Reel