

GSBAT54LP Schottky Barrier Diode

Features

- Extremely fast switching speed
- Low forward voltage
- RoHS compliant/green EMC



DFN1006



Schematic Diagram

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

Parameter	Symbol	Value	Units
Reverse Voltage	V_R	30	V
Average Forward Current	$I_{F(AV)}$	200	mA
Non-Repetitive Peak Forward Current ¹	I_{FSM}	600	mA
Power Dissipation	P_D	200	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	500	$^{\circ}\text{C/W}$
Junction Temperature	T_J	125	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Reverse Breakdown Voltage	V_{BR}	$I_R=10\mu\text{A}$	30	-	-	V
Reverse Current	I_R	$V_R=25\text{V}$	-	-	2	μA
Forward Voltage	V_F	$I_F=0.1\text{mA}$	-	-	0.24	V
		$I_F=1\text{mA}$	-	-	0.32	
		$I_F=10\text{mA}$	-	-	0.4	
		$I_F=30\text{mA}$	-	-	0.5	
		$I_F=100\text{mA}$	-	-	1	
Total Capacitance	C_T	$V_R=1\text{V}$, $f=1.0\text{MHz}$	-	-	10	pF
Reverse Recovery Time	T_{RR}	$I_F=I_R=10\text{mA}$, $I_{R(REC)}=1\text{mA}$	-	-	5	nS

Note:

1. 8.3ms single half sine-wave

Typical Characteristic Curves

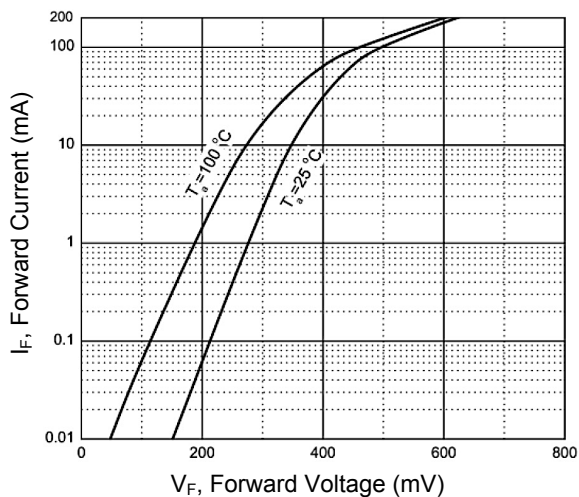


Figure 1. Forward Characteristics

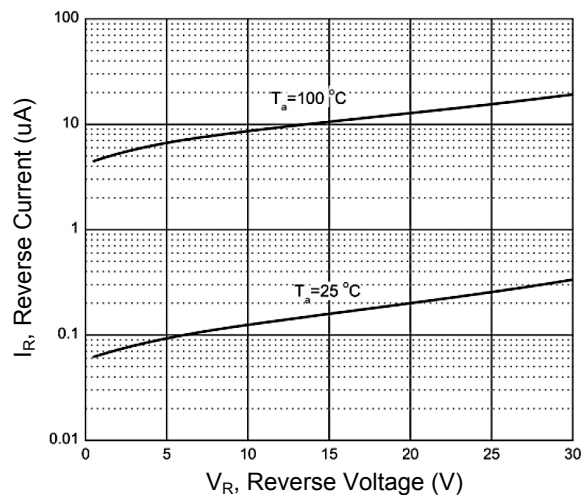


Figure 2. Reverse Characteristics

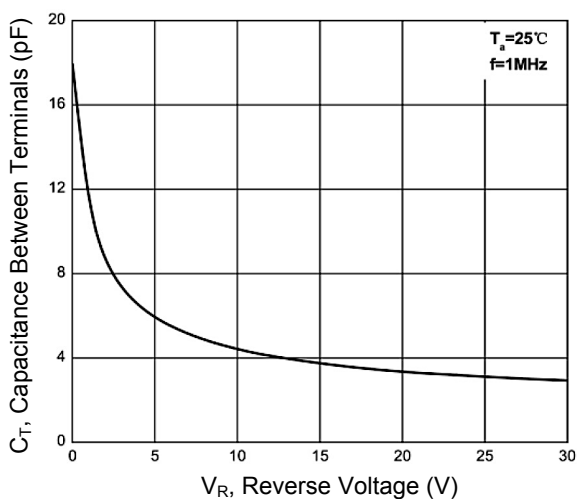


Figure 3. Capacitance Characteristics

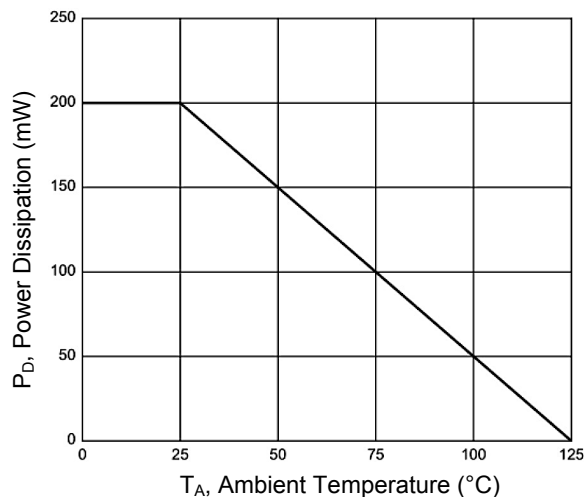
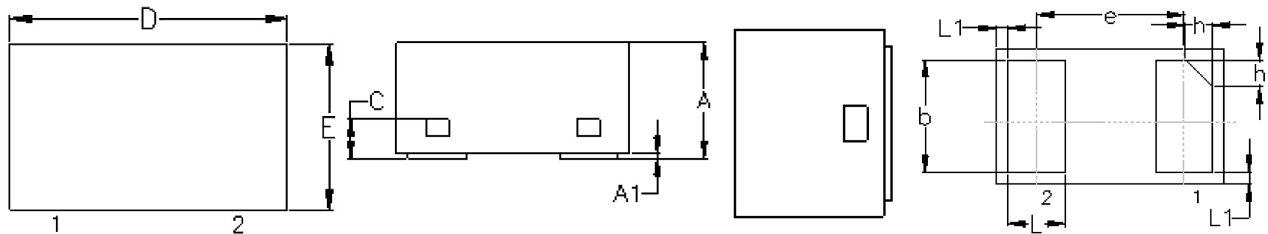


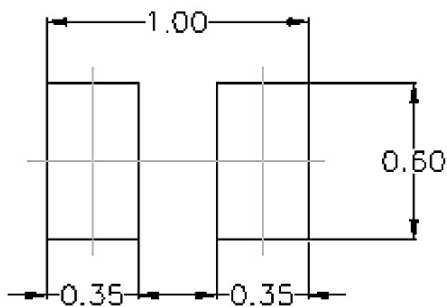
Figure 4. Power Derating Curve

Package Outline Dimensions (DFN1006)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.45	0.55	0.018	0.022
A1	0.00	0.05	0.000	0.002
b	0.45	0.55	0.018	0.022
C	0.12	0.18	0.005	0.007
D	0.95	1.05	0.037	0.041
e	0.65 BSC		0.026 BSC	
E	0.55	0.65	0.022	0.026
L	0.20	0.30	0.008	0.012
L1	0.05 REF		0.002 REF	
h	0.07	0.17	0.003	0.007

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	Carrier	Quantity
GSBAT54LP	DFN1006	TU	Tape & Reel	10,000 Pcs / Reel