



GF386B256M12HUF

Fast Recovery Epitaxial Diode(FRED)

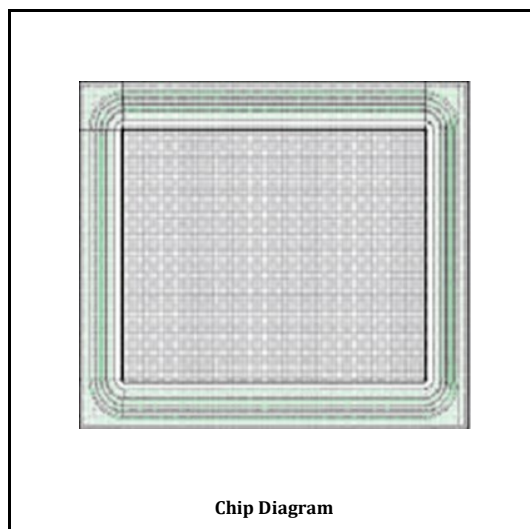
PRODUCT FEATURES

- ◆Ultrafast Recovery Time
- ◆Soft Recovery Characteristics
- ◆Low Forward Voltage
- ◆Low Leakage Current
- ◆Low Recovery Loss

Applications (not limited to)

- ◆Freewheeling, Snubber, Clamp
- ◆Snubber Diode
- ◆Switch Power Supplies
- ◆Motor control
- ◆Inverters, Converters

Items	Description
Wafer Size	5 Inch
Gross Die	110 EA
Top Metal	Al/Ag
Back Metal	Ag
Dimensions	um
Chip Size	9800um * 6500um
Pad Size	8750um * 5450um
Wafer Thickness	260±20um
Scribe Line width	60 um
Bonding Wire In case top metal=Al	Al, 18mil*4



Chip Diagram

Absolute Maximum ratings (T_a=25℃)

Parameter	Symbol	Value	Units
DC Blocking Voltage	V _{RRM}	1200	V
Average Rectified Forward Current	I _{FAV}	100	A
Nonrepetitive Peak Surge Current@8.3ms	I _{FSM}	850	A
Operating Junction Temperature	T _j	175	℃
Storage Temperature	T _{STG}	- 55~150	℃

Electrical specification (T_a=25℃)

Parameter	Symbol	Test Conditions	Min	Max	Typ	Units
Reverse Breakdown Voltage	V _{BR}	I _R =100μA	1200	-	1350	V
Forward Voltage	V _F	I _F =100A, T _a =25℃	-	2.40	2.00	V
		I _F =100A, T _a =125℃	-	2.20	1.70	V
Reverse Leakage Current	I _R	V _R =1200V, T _a =25℃	-	20	-	μA
		V _R =1200V, T _a =125℃	-	250	-	μA
Reverse Recovery Time	T _{rr}	I _F =0.5A, I _R =1A, I _{rr} =0.25A	-	150	100	ns
		I _F =1A, V _R =30V, di/dt=-200A/us	-	-	60	ns

Remark:

- 1.Customer should obtain the latest version of datasheet before placing order, and verify the relevant information.
- 2.Cutting damage and chipping area can't beyond scribe line in given size range.
- 3.Testing system of T_{rr} could be different, customer might take secondary test to evaluate if necessary.
- 4.Customer might choose the bonding wire material and diameter according to actual situation, while no less than our recommendation.