



GF386B256M12HUFFS

Fast Recovery Epitaxial Diode(FRED)

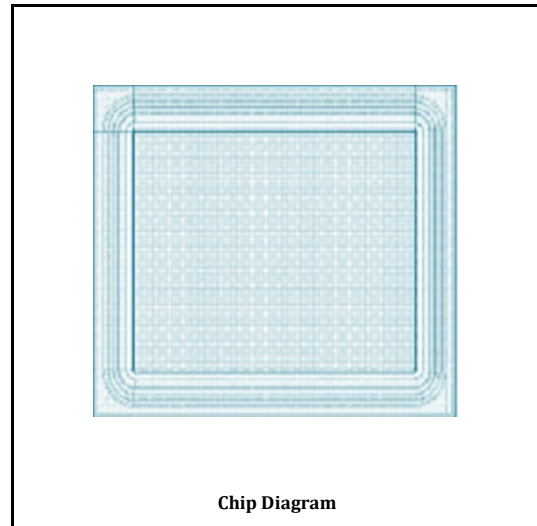
PRODUCT FEATURES

- ◆ 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	8730um * 5430um
Wafer Thickness	260±20um
Scribe Line width	60 um
Bonding Wire In case top metal=Al	Al, 20mil*5



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}	-55~175	℃

Electrical specification (T_a=25℃)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Units
Reverse Breakdown Voltage	V _{BR}	I _R =100μA	1200	1350	-	V
Forward Voltage	V _F	I _F =100A, T _a =25℃	-	2.80	3.30	V
		I _F =100A, T _a =125℃	-	2.10	2.80	V
Reverse Leakage Current	I _R	V _R =1200V, T _a =25℃	-	-	20	μA
		V _R =1200V, T _a =125℃	-	100	-	μA
Reverse Recovery Time	T _{rr}	I _F =0.5A, I _R =1A, I _{rr} =0.25A	-	85	120	ns
		I _F =1A, V _R =30V, di/dt=-200A/us	-	50	-	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.