GLFN100F120AX2

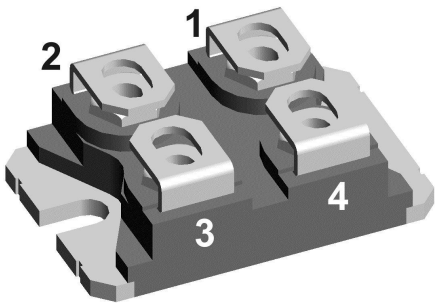
GL Silicon Fast Recovery Epitaxial Diode

General Description:

These diodes are optimized to less losses and EMI/RFI in high frequency power conditioning system. The soft recovery character of the diodes offers buffer in most applications. These devices are suited for power converters and other applications where the switching losses are not significant portion of the total losses.

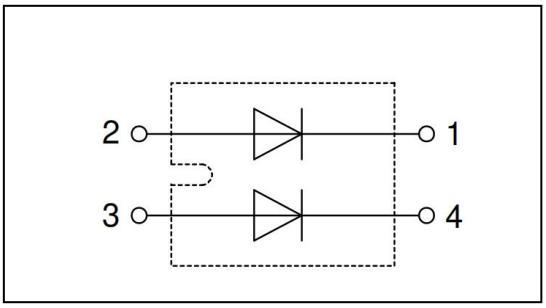
V_{RRM}	1200	V
I_{FAVM}	2*100	A
$P_D(T_C=25℃)$	250	W
t_{rr}	150	nS

TO-227B



Features:

- Planar passivated chips
- Low leakage current
- Very short recovery time
- Improved thermal behaviour
- Very low Irm-values
- Very soft recovery behaviour
- Avalanche voltage rated for reliable operation
- Soft reverse recovery for low EMI/RFI



Applications:

- Antiparallel diode for high frequency
- switching devices
- Antisaturation diode
- Snubber diode
- Free wheeling diode
- Rectifiers in switch mode power
- supplies (SMPS)
- Uninterruptible power supplies (UPS)

Absolute (Tc=25℃ unless otherwise specified):

Symbol	Parameter	Values	Unit
V_R	Maximum D.C. Reverse Voltage	1200	V
V_{RRM}	Maximum Repetitive Reverse Voltage		
$I_{F(AV)}$	Average Forward Current(T_C=110℃)	100	A
I_{RMS}	RMS current (per terminal)	150	
I_{FSM}	Single pulse forward current 【t = 10 ms; (50 Hz)】	900	
P_D	Power Dissipation	250	W
T_J	Junction Temperature	150	℃
T_{STG}	Storage Temperature Range	-40 to +150	
R_{thJC}	Junction to Case Thermal Resistance	0.5	℃ /W

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Electrical Characteristics (Tc= 25℃ unless otherwise specified) :

Symbol	Parameter	Test Conditions		Min	Typ	Max	Unit
I_R	Maximum Reverse Leakage Current	V_R =1200V		-	-	3	mA
		V_R =960V, T_J = 150℃		-	-	15	
V_F	Forward Voltage	I_F=100A		-	-	1.87	V
		I_F=100A,T_J=150℃		-	-	1.61	
		I_F=200A		-	-	2.13	
		I_F=200A,T_J=150℃		-	-	1.92	
t_{rr}	Reverse Recovery Time	I_F=100A,V_R=600V, -di/dt =600A/us	T_J = 25℃	-	150	-	nS
			T_J = 100℃	-	255	-	
C_J	junction capacitance	VR =400 V, f =1MHz		-	107	-	pF

Characteristics Curve:

Fig. 1 Forward current IF versus VF

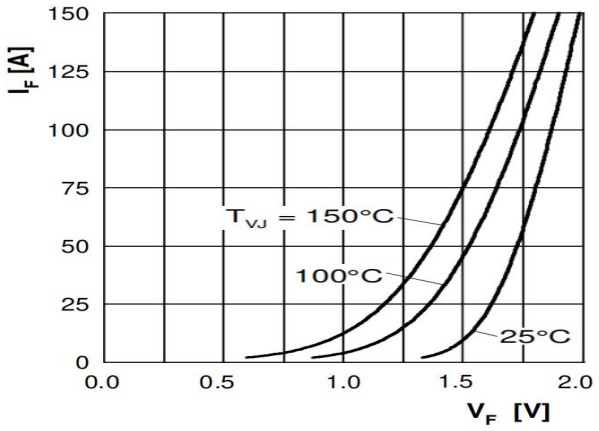

Fig. 2 Typ. reverse recov. charge Qrr versus -diF/dt

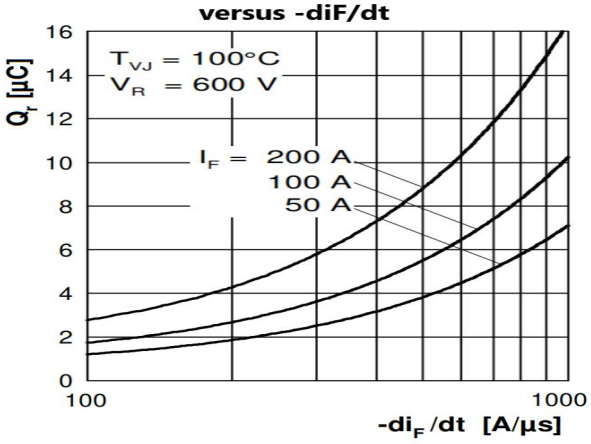

Fig. 3 Typ. peak reverse current Irr versus -diF/dt

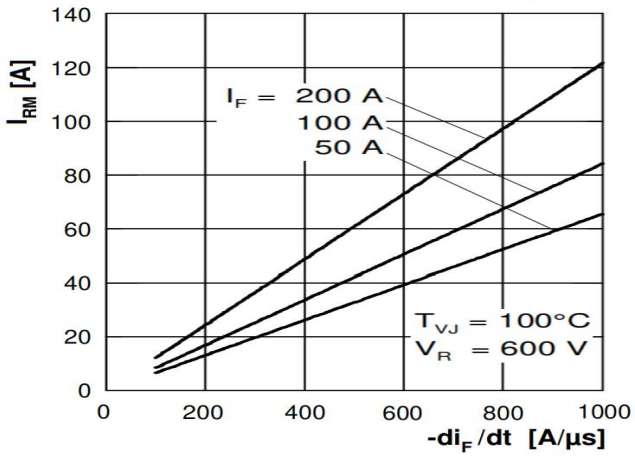

Fig. 4 Dyn. parameters Qr, IRM versus TVJ

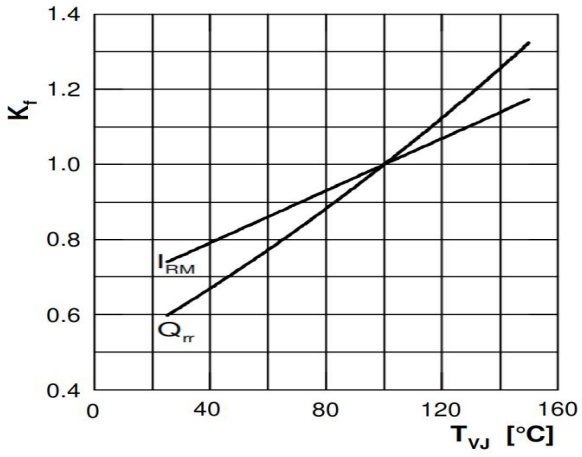

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Fig. 5 Typ. recovery time trr versus -diF/dt

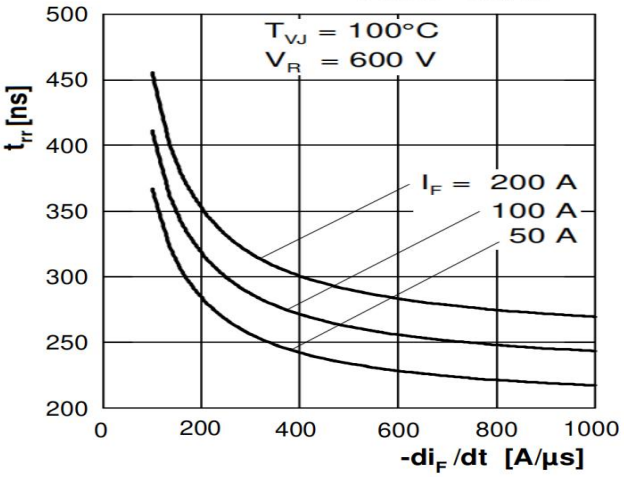

Fig. 6 Typ. peak forward voltage VFR and tfr versus diF/dt

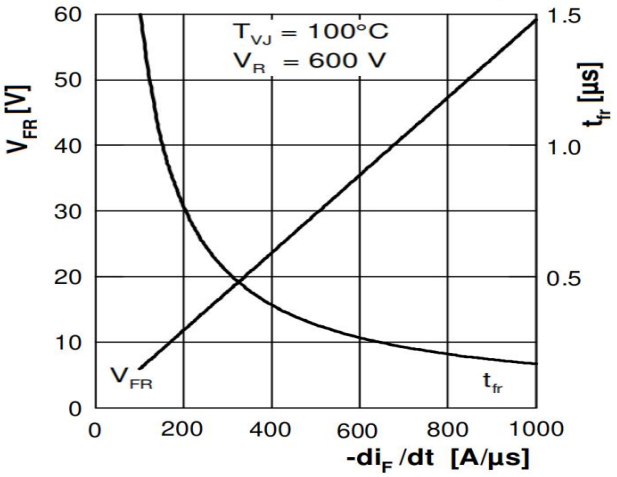

Fig. 7 Transient thermal impedance junction to case