GRF100TS170DC2

GL Silicon Fast Recovery Epitaxial Diode

General Description:

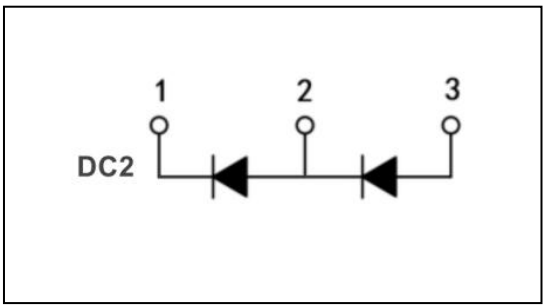
FRED from GL utilizes advanced processing techniques to achieve ultrafast recovery times and higher forward current. Its soft recovery characteristics and high reliability suit for wide industrial applications.

V_{RRM}	1700	V
I_{FAVM}	100	A
$P_D(T_C=25℃)$	560	W
t_{rr}	110	nS

Features:

- Ultrafast Reverse Recovery Time
- Soft Reverse Recovery Characteristics
- Low Forward Voltage
- Low Reverse Recovery Loss
- High ruggedness
- Low Leakage Current

Applications:



- Inversion Welder
- Ultrasonic Cleaner and Welder
- Plating Power Supply
- UPS
- PFC
- DC Chopper

Absolute (Tc=25℃ unless otherwise specified):

Symbol	Parameter	Test Conditions	Values	Unit
V_R	Maximum D.C. Reverse Voltage		1700	V
V_{RRM}	Maximum Repetitive Reverse Voltage	T_C=85℃		
$I_{F(AV)}$	Average Forward Current	T_C=85℃, Per Diode	100	A
$I_{F(RMS)}$	RMS Forward Current	T_C=85℃, Per Diode	150	
I_{FSM}	Non Repetitive Surge Forward Current	V_R=0V, t_p=10ms, T_j=25℃	1000	
		V_R=0V,t_p=8.3ms,T_j=25℃	1100	
I^2t	For Fusing	V_R=0V, t_p=10ms, T_j=45℃	5000	A2S
		V_R=0V,t_p=8.3ms,T_j=45℃	5500	
P	Power Dissipation		560	W
T_J	Junction Temperature		-40 to +150	℃
T_{STG}	Storage Temperature Range		-40 to +125	
V_{ISO}	isolation voltaget , t = 1 min 50Hz, RMS; I_{ISO} < 1 mA		2500	V
Torque	Module to Sink	Recommended (M6)	3～4.7	Nm
Torque	Module Electrodes	Recommended (M6)	3～4.7	Nm
R_{thJC}	Junction to Case Thermal Resistance(Per Diode)		0.22	℃ /W

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

Symbol	Parameter	Test Conditions	Min	Typ	Max	Unit
I_{RM}	Maximum Reverse Leakage Current	V_R =1700V			1	mA
		V_R =1700V, T_J = 125℃			12	
V_F	Forward Voltage	I_F=150A		2.3	2.8	V
		I_F=150A,T_J=130℃		1.8	2.4	
t_{rr}	Reverse Recovery Time (IF = 1A, dIF/dt = -200A/μs, VR = 30V)			110		ns

Outlines