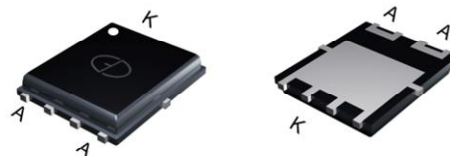


Features

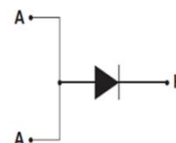
- FRED (Planar) wafer construction
- Ultrafast recovery time
- Low forward voltage drop, low power loss
- High efficiency
- Plastic package has underwriters Laboratory
Flammability Classification 94V-0



Package: POWER QFN5x6

Mechanical Data

- Case: Epoxy, molded
- Weight: 0.1 grams (approximately)
- Lead yemperature for soldering purposes: 260°C max. for 10 sec
- 3000 units per reel



Schematic Diagram

Maximum Ratings & Electrical Characteristics

(T_A=25°C unless otherwise noted)

Parameter	Test Conditions		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage			V _{RRM}	600	V
Working Peak Reverse Voltage			V _{RWM}	600	V
Maximum DC Blocking Voltage			V _{DC}	600	V
Maximum Average Forward Rectified Current @ T _c =105°C			I _F (AV)	10	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load per Diode			I _{FSM}	125	A
Voltage Rate of Change (rated V _R)			DV/dt	10000	V/μs
Operating Junction Temperature Range			T _J	- 55 to+150	°C
Storage Temperature Range			T _{STG}	- 55 to+150	°C
Maximum Reverse Recover Time (I _F =0.5A, I _R =1.0A,I _{rec} =0.25A)			T _{rr}	50	ns
Maximum Instantaneous Forward Voltage per Leg	I _F =10A	T _C =25°C	V _F	1.60	V
	I _F =10A	T _C =125°C		1.50	
Maximum Reverse Current per Leg at Working Peak Reverse Voltage			I _R	10	μA
				500	μA
Thermal Characteristics T _A =25°C unless otherwise noted					
Symbol	Parameter		Typ.		Unit
R _{θJC}	Thermal Resistance, Junction to Case per Leg		2.5		°C/W
R _{θJA}	Thermal Resistance, Junction to Ambient per Leg		50		°C/W

Note: Pulse test:300us pulse width, duty cycle=2%

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

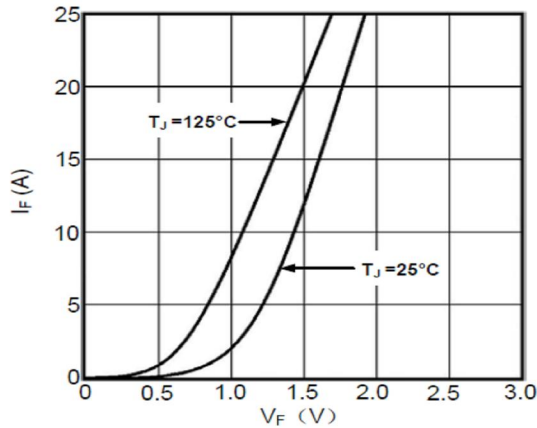


Fig1. Forward Voltage Drop vs Forward Current

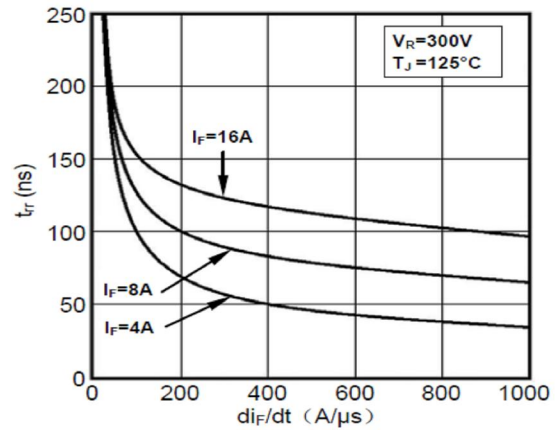


Fig2. Reverse Recovery Time vs di_F/dt

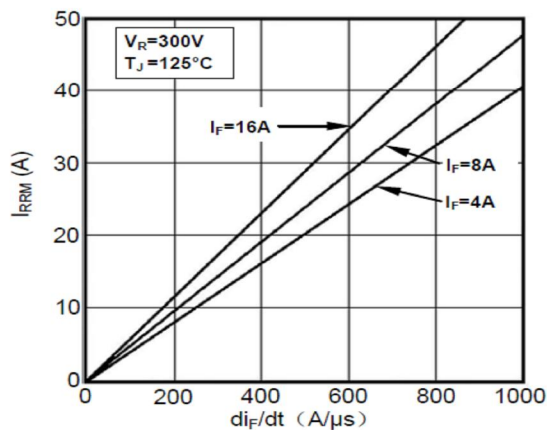


Fig3. Reverse Recovery Current vs di_F/dt

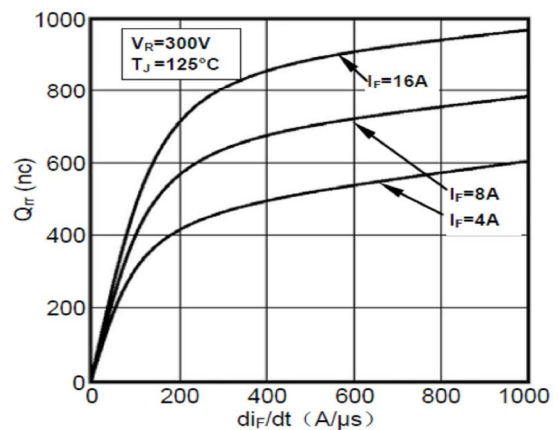


Fig4. Reverse Recovery Charge vs di_F/dt

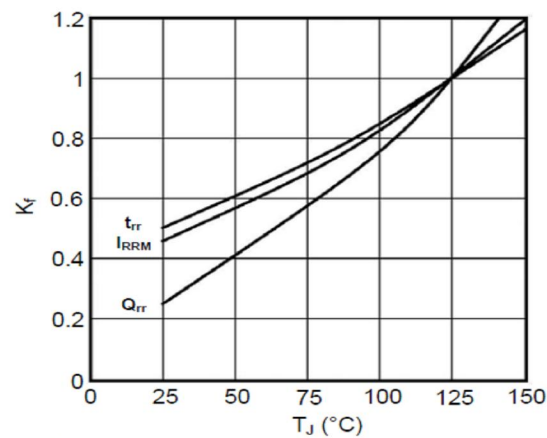


Fig5. Dynamic Parameters vs Junction Temperature

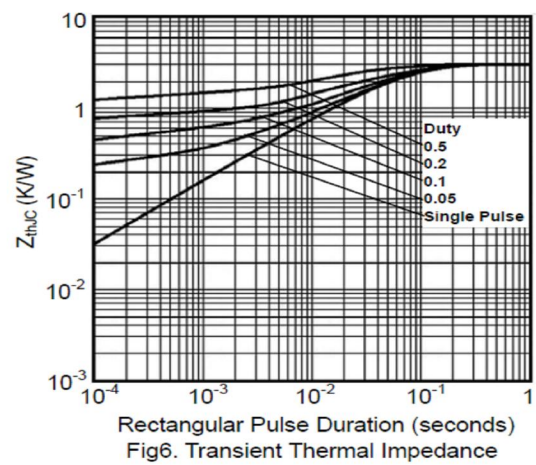


Fig6. Transient Thermal Impedance

Package Outline Dimensions

in millimeters

POWER QFN 5x6

