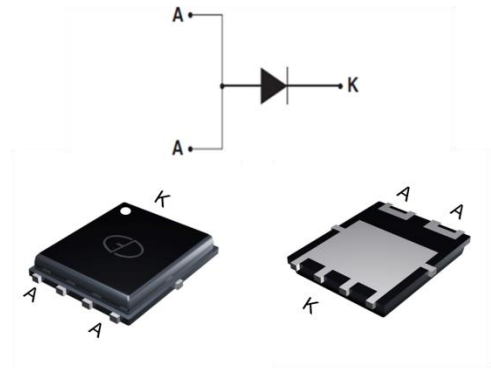


Features

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

Mechanical Data

- Case: Epoxy, Molded
- Weight: 0.1grams(approximately)
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- Shipped 3000 units per reel



Package: POWER QFN5x6

Maximum Ratings (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 at T _c =105°C total device per diode				I _{F(AV)}	5	A
Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load per diode)				I _{FSM}	90	A
Voltage Rate of Change(rated V _R)				Dv/dt	10000	V/us
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 =0.5Amp, I _R =1.0Amp,I _{rec} =0.25Amp)				T _{rr}	35	ns
Maximum Instantaneous Forward Voltage per Leg		I _F =5A I _F =5A	T _C =25°C T _C =125°C	V _F	1.60 1.50	V
Maximum Reverse Current per Leg at working peak reverse voltage		T _J =25°C T _J =100°C		I _R	10 500	uA uA
Thermal Characteristics T _A =25°C unless otherwise noted						
Symbol	Parameter	TYP (POWER QFN 5x6)				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)

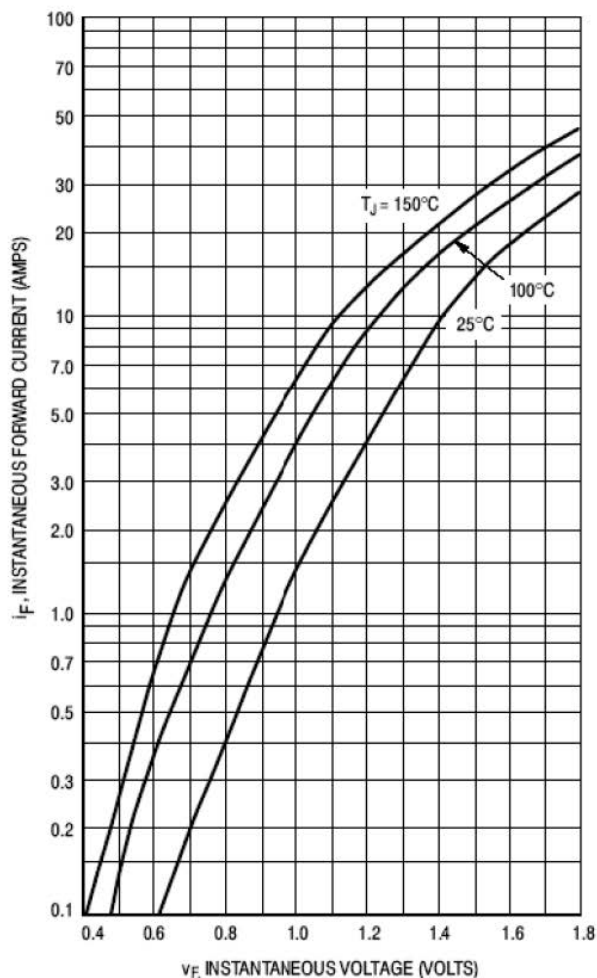


Figure 1. Typical Forward Voltage, Per Leg

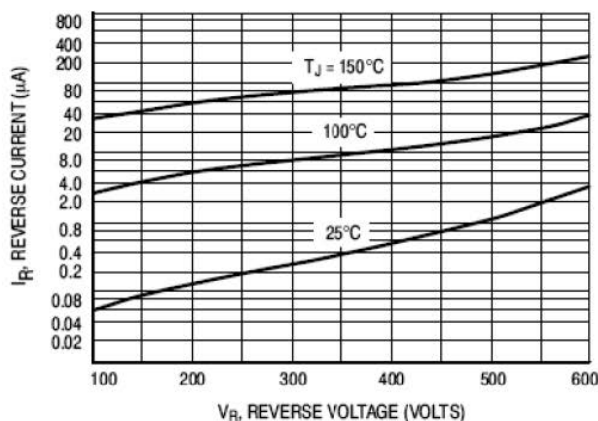


Figure 2. Typical Reverse Current, Per Leg*

* The curves shown are typical for the highest voltage device in the voltage grouping. Typical reverse current for lower voltage selections can be estimated from these same curves if V_R is sufficiently below rated V_R .

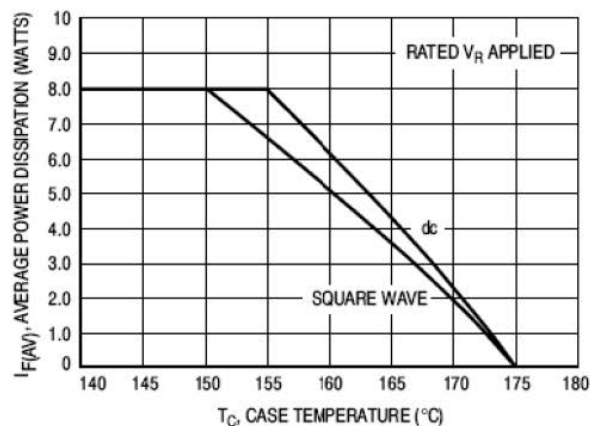


Figure 3. Current Derating, Case, Per Leg

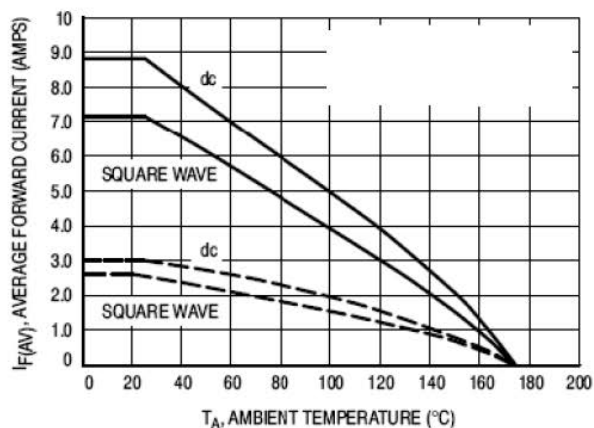


Figure 4. Current Derating, Ambient, Per Leg

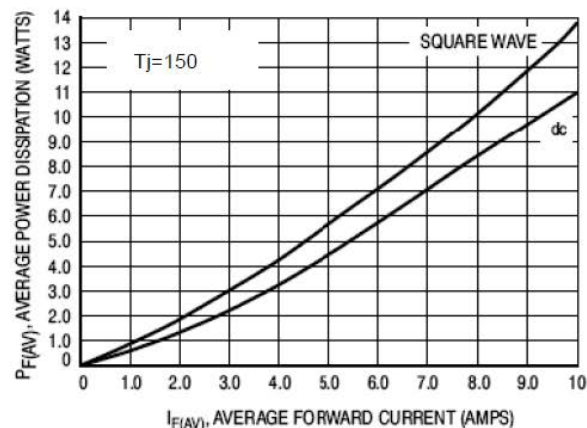


Figure 5. Power Dissipation, Per Leg

Package Outline Dimensions

Unit: millimeters

POWER QFN5x6

