

## Features

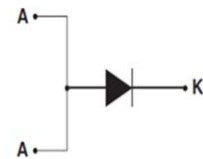
- Halogen-free package has underwriters Laboratory Flammability Classification 94V-0
- Thin package: thickness 1.0mm
- Low forward voltage, high efficiency



Package: POWER QFN5x6

## Mechanical Data

- Case: epoxy, molded
- Weight: 0.1grams (approximately)
- Finish: all external surfaces corrosion resistant and terminal leads readily solderable
- Lead temperature for soldering purpose: 260°C max. for 10 sec
- 3000 pcs/reel



Schematic Diagram

## Maximum Ratings & Electrical Characteristics

(T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Test Conditions		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage			V <sub>RRM</sub>	100	V
Working Peak Reverse Voltage			V <sub>RWM</sub>	100	V
Maximum DC Blocking Voltage			V <sub>DC</sub>	100	V
Maximum Average Forward Rectified Current @ T <sub>c</sub> =105°C	Total Device		I <sub>F(AV)</sub>	15	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load per Diode			I <sub>FSM</sub>	150	A
Peak repetitive Reverse Current Per Leg at tp=2.0μs ,1KHz			I <sub>RRM</sub>	1.0	A
Operating Junction Temperature Range			T <sub>J</sub>	- 55 to+150	°C
Storage Temperature Range			T <sub>STG</sub>	- 55 to+150	°C
Maximum Instantaneous Forward Voltage per Leg	I <sub>F</sub> =15A	T <sub>C</sub> =25°C	V <sub>F</sub>	0.80	V
	I <sub>F</sub> =15A	T <sub>C</sub> =125°C		0.72	
Maximum Reverse Current per Leg at Working Peak Reverse Voltage	T <sub>J</sub> =25°C		I <sub>R</sub>	200	μA
	T <sub>J</sub> =100°C			15	mA
<b>Thermal Characteristics (T<sub>A</sub>=25°C unless otherwise noted)</b>					
<b>Symbol</b>	<b>Parameter</b>	<b>Typ. (POWER QFN5x6)</b>			<b>Unit</b>
R <sub>θJC</sub>	Thermal Resistance, Junction to Case per Leg	2.5			°C/W
R <sub>θJA</sub>	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)

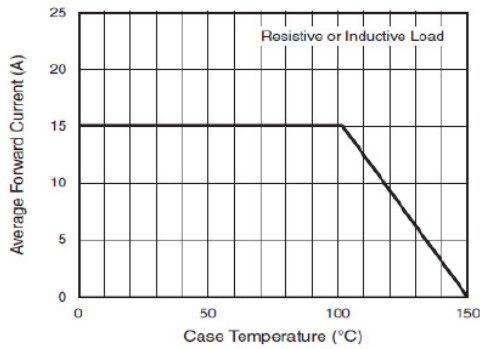


Fig. 1 - Forward Current Derating Curve

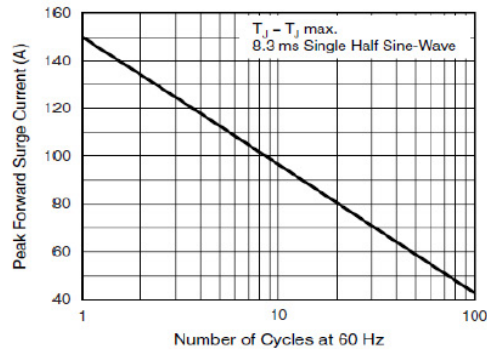


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

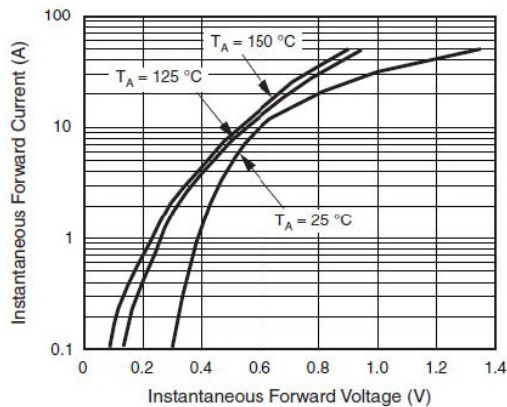


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

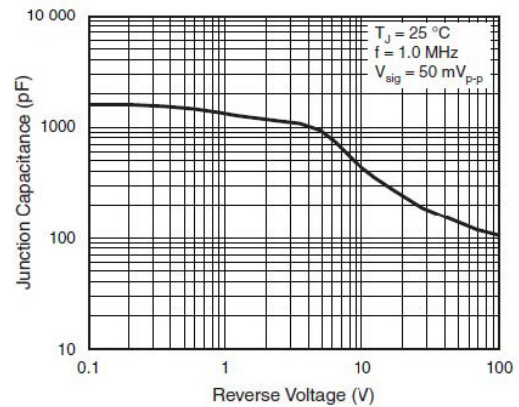


Fig. 5 - Typical Junction Capacitance

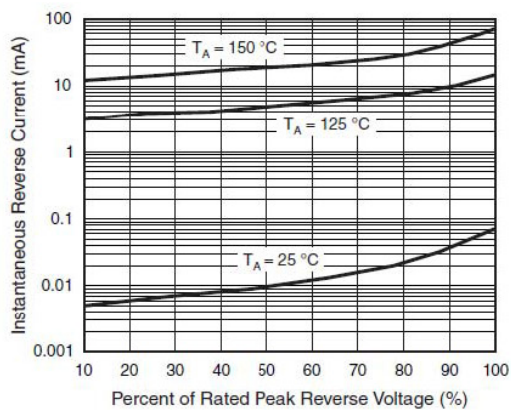


Fig. 4 - Typical Reverse Characteristics Per Diode

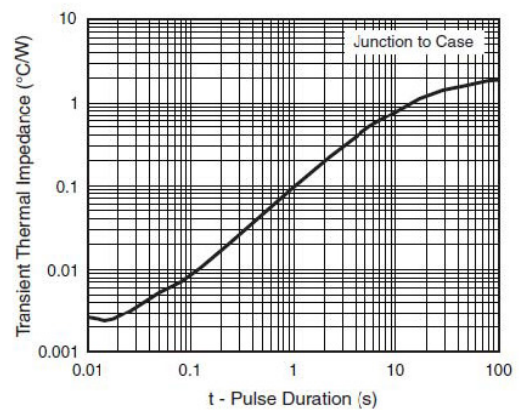


Fig. 6 - Typical Transient Thermal Impedance Per Diode

## Package Outline Dimensions

in millimeters

**POWER QFN5x6**

