

Features

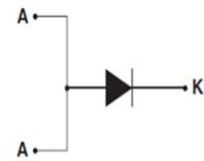
- Halogen-free package has underwriters Laboratory Flammability Classification 94V-0
- Thin package: thickness 1.0mm
- Low forward voltage, high efficiency



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_A=25°C unless otherwise noted)

Parameter	Test Conditions		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage			V _{RRM}	50	V
Working Peak Reverse Voltage			V _{RWM}	50	V
Maximum DC Blocking Voltage			V _{DC}	50	V
Maximum Average Forward Rectified Current @ T _c =105°C	Total Device		I _{F(AV)}	20	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load per Diode			I _{FSM}	200	A
Peak repetitive Reverse Current Per Leg at tp=2.0μs ,1KHz			I _{RRM}	1.0	A
Operating Junction Temperature Range			T _J	- 55 to+150	°C
Storage Temperature Range			T _{STG}	- 55 to+150	°C
Maximum Instantaneous Forward Voltage per Leg	I _F =20A I _F =20A	T _C =25°C T _C =125°C	V _F	0.55 (0.49 typ) 0.45	V
Maximum Reverse Current per Leg at Working Peak Reverse Voltage		T _J =25°C T _J =100°C	I _R	500 50	μA mA
Thermal Characteristics (T_A=25°C unless otherwise noted)					
Symbol	Parameter	Typ. (POWER QFN5x6)			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)

FIG. 1 FORWARD CURRENT DERATING CURVE

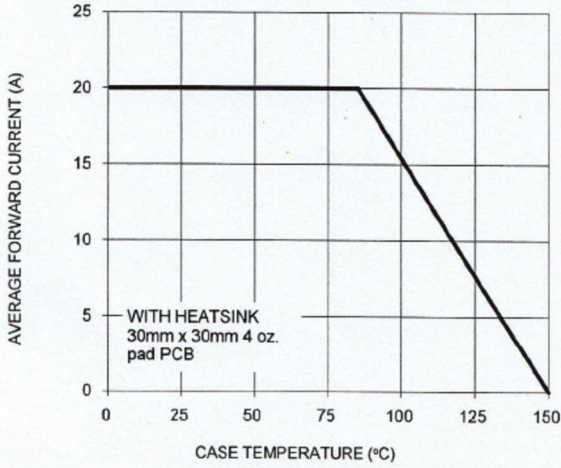


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

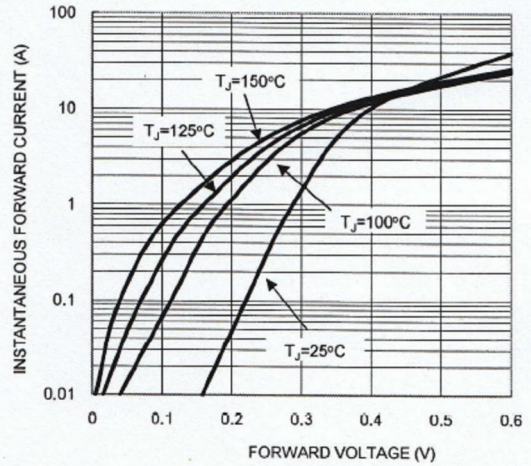


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

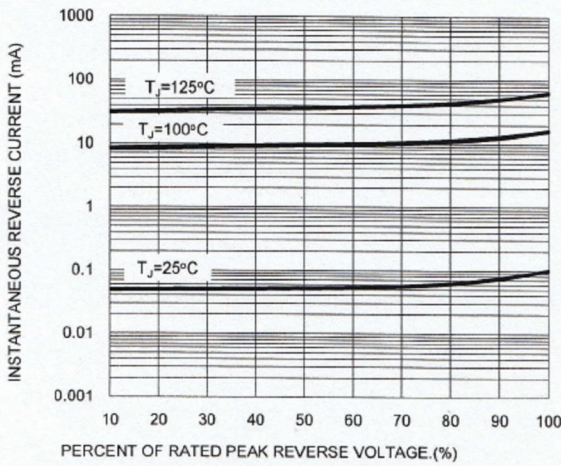
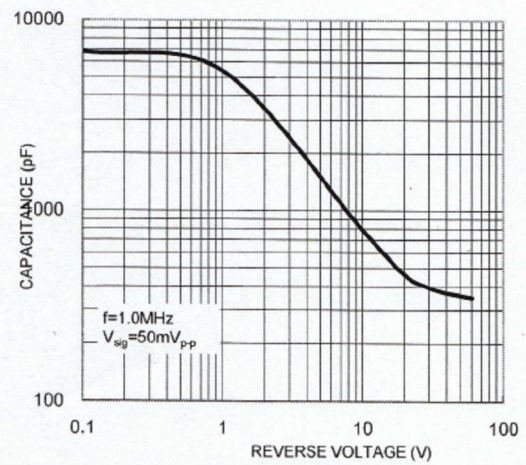


FIG. 4 TYPICAL JUNCTION CAPACITANCE



Package Outline Dimensions

in millimeters

POWER QFN5x6

