

Features

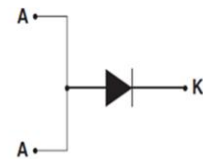
- Halogen-free package has underwriters Laboratory Flammability Classification 94V-0
- Thin package: thickness 1.0mm
- Low forward voltage, high efficiency



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

($T_A=25^\circ\text{C}$ 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 @ $T_c=105^\circ\text{C}$	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 $t_p=2.0\mu\text{s}$, 1KHz			I_{RRM}	1.0	A
Operating Junction Temperature Range			T_J	- 55 to+150	$^\circ\text{C}$
Storage Temperature Range			T_{STG}	- 55 to+150	$^\circ\text{C}$
Maximum Instantaneous Forward Voltage per Leg	$I_F=20\text{A}$	$T_C=25^\circ\text{C}$	V_F	0.55 (0.49 typ)	V
	$I_F=20\text{A}$	$T_C=125^\circ\text{C}$		0.45	
Maximum Reverse Current per Leg at Working Peak Reverse Voltage	$T_J=25^\circ\text{C}$		I_R	500	μA
	$T_J=100^\circ\text{C}$			50	mA
Thermal Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)					
Symbol	Parameter	Typ. (POWER QFN5x6)			Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case per Leg	2.5			$^\circ\text{C/W}$
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient per Leg	50			$^\circ\text{C/W}$

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

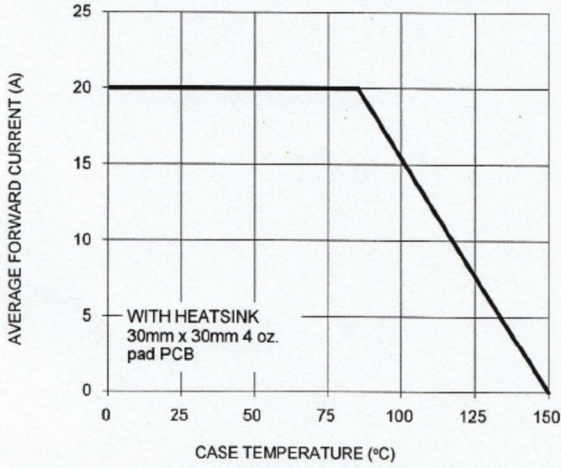


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

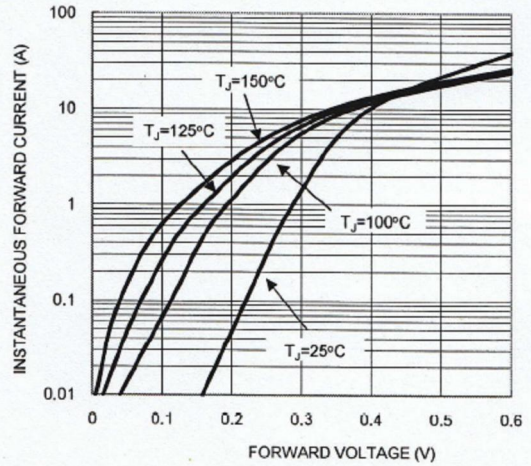


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

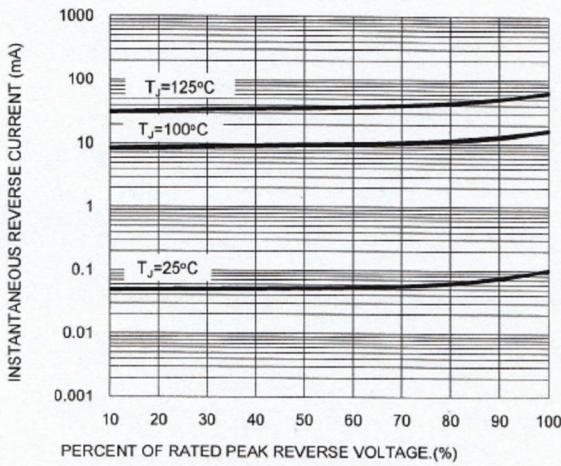
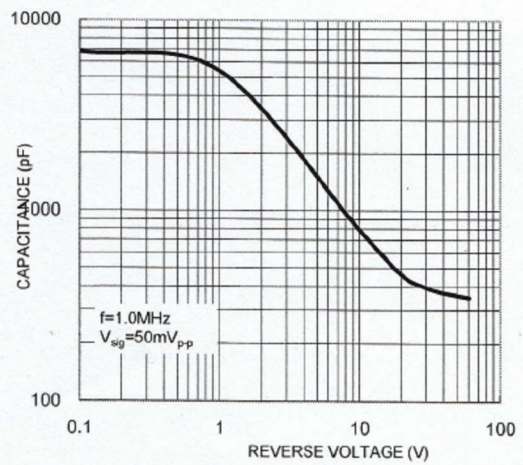


FIG. 4 TYPICAL JUNCTION CAPACITANCE



Package Outline Dimensions

in millimeters

POWER QFN5x6

