

Features

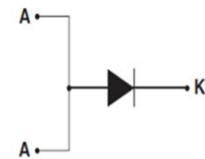
- Halogen-free package has underwriters Laboratory Flammability Classification 94V-0
- Thin package: thickness 1.0mm
- Low forward voltage, high efficiency



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}	45	V
Working Peak Reverse Voltage		V_{RWM}	45	V
Maximum DC Blocking Voltage		V_{DC}	45	V
Maximum Average Forward Rectified Current @ $T_c=105^\circ\text{C}$	Total Device	$I_{F(AV)}$	15	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load per Diode		I_{FSM}	250	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	$I_F=1\text{A}$ $T_C=25^\circ\text{C}$ $I_F=10\text{A}$ $T_C=25^\circ\text{C}$ $I_F=15\text{A}$ $T_C=25^\circ\text{C}$	V_F	0.30 (typ) 0.43 (0.4 typ) 0.47 (0.43 typ)	V
Maximum Reverse Current per Leg at Working Peak Reverse Voltage	$T_J=25^\circ\text{C}$	I_R	500	μA
Thermal Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)				
Symbol	Parameter	Typ. (POWER QFN 5x6)		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)

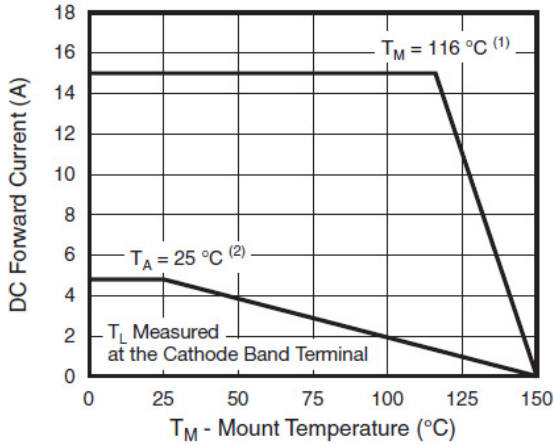


Fig. 1 - Forward Current Derating Curve

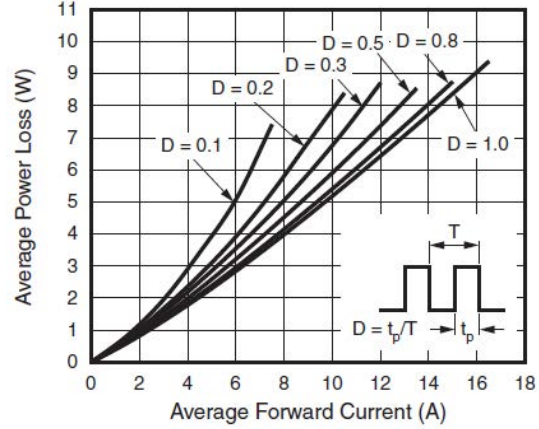


Fig. 2 - Forward Power Loss Characteristics Per Diode

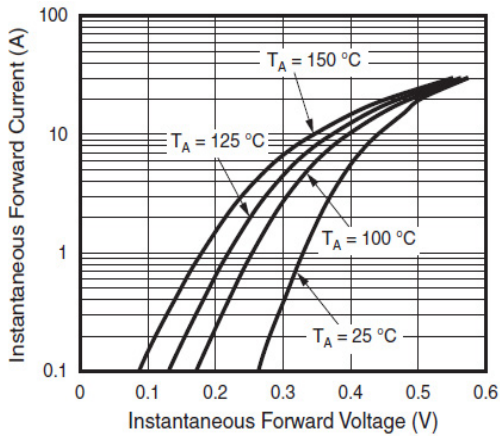


Fig. 3 - Typical Instantaneous Forward Characteristics Per Diode

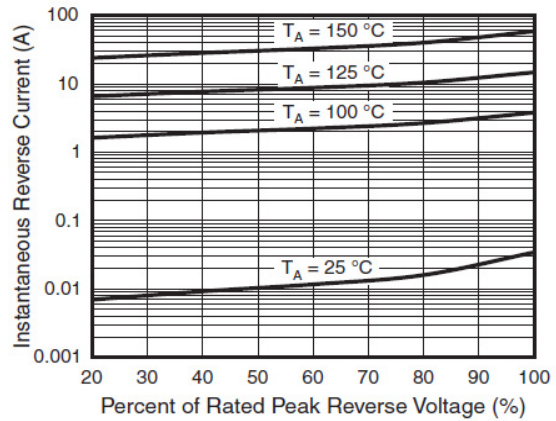


Fig. 4 - Typical Reverse Leakage Characteristics Per Diode

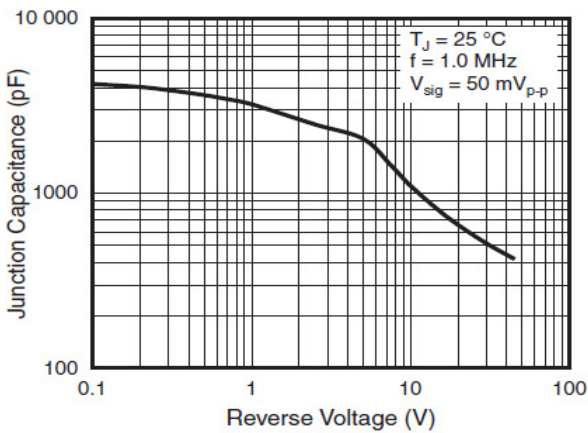


Fig. 5 - Typical Junction Capacitance

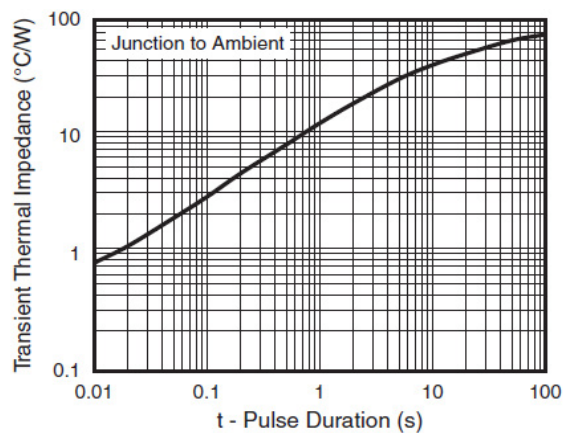


Fig. 6 - Typical Transient Thermal Impedance Per Diode

Package Outline Dimensions

in millimeters

POWER QFN5x6

