



**TECHNICAL DATA
DATA SHEET**

50WQ20FN SCHOTTKY RECTIFIER

Applications:

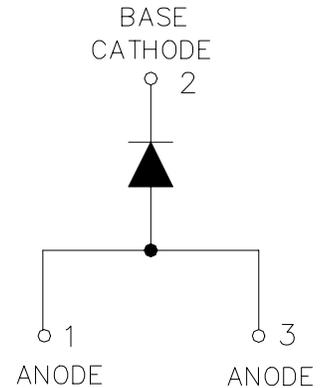
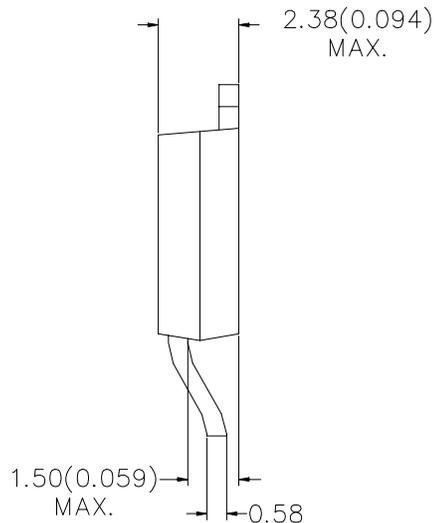
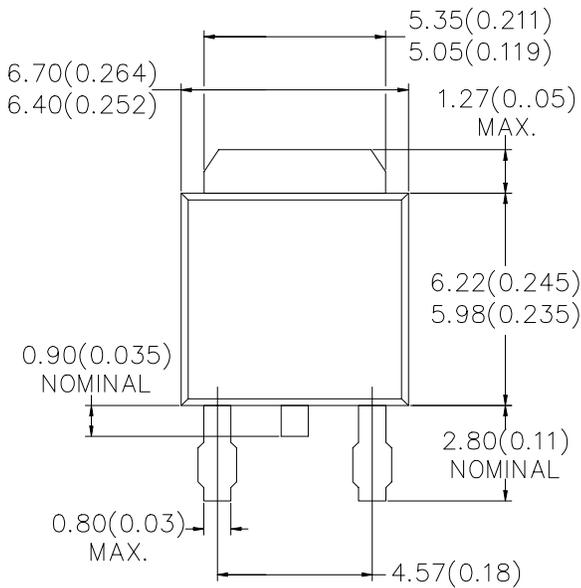
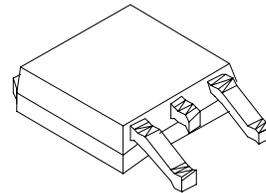
- Switching power supply • Converters • Free-Wheeling Diodes • Reverse battery protection
- Battery Charging

Features:

- Popular D-PAK outline
- Small foot print, surface moutable
- Low forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability

Mechanical Dimensions: In Inches / mm

D-PAK



**Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	200	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C = 136^\circ\text{C}$, rectangular wave form	5.5	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	132	A

Electrical Characteristics:

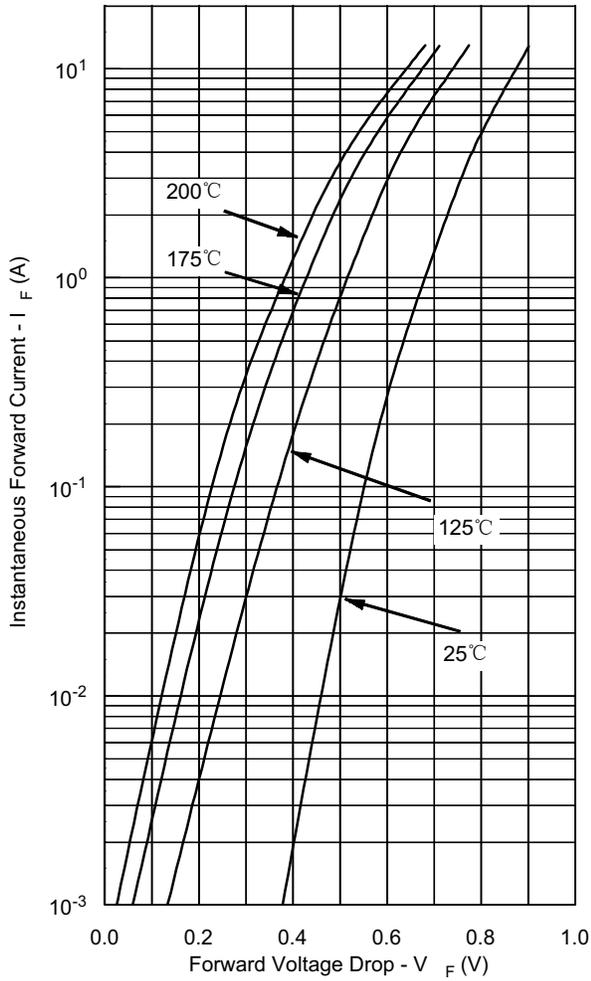
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	@ 5 A, Pulse, $T_J = 25^\circ\text{C}$	0.87	V
	V_{F2}	@ 5 A, Pulse, $T_J = 125^\circ\text{C}$	0.73	V
Max. Reverse Current	I_{R1}	@ $V_R = \text{Rated } V_R$, Pulse, $T_J = 25^\circ\text{C}$	1.0	mA
	I_{R2}	@ $V_R = \text{Rated } V_R$, Pulse, $T_J = 125^\circ\text{C}$	4.0	mA
Max. Junction Capacitance	C_T	@ $V_R = 5\text{V}$, $T_C = 25^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$	150	pF
Typical Series Inductance	L_S	Measured lead to lead 5 mm from package body	5.0	nH
Max. Voltage Rate of Change	dv/dt	-	10,000	V/ μs

* Pulse Width < 300 μs , Duty Cycle < 2%**Thermal-Mechanical Specifications:**

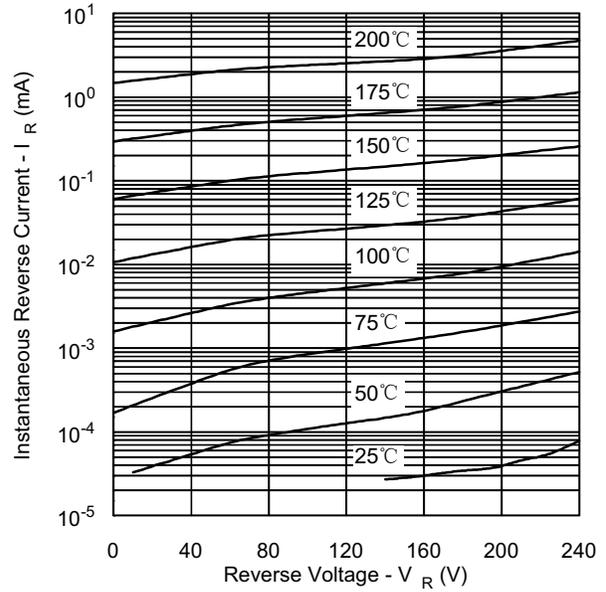
Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T_J	-	-40 to +175	$^\circ\text{C}$
Max. Storage Temperature	T_{stg}	-	-40 to +175	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	3.0	$^\circ\text{C/W}$
Approximate Weight	wt	-	0.3	g
Case Style		D – PAK(Similar to TO-252AA)		



Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance

