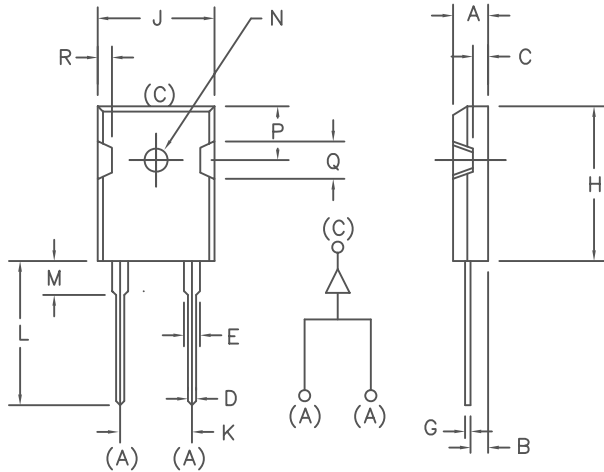


# 100 Amp Ultrafast Rectifier UF10060



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.185	.209	4.70	5.31	
B	.087	.102	2.21	2.59	
C	.059	.098	1.50	2.49	
D	.040	.055	1.02	1.40	
E	.079	.094	2.01	2.39	
F	---	---	---	---	
G	.016	.031	.410	0.78	
H	.819	.883	20.80	22.4	
J	.627	.650	15.93	16.5	
K	.430	---	10.92	---	
L	.790	.810	20.07	20.6	
M	.157	.180	3.99	4.57	
N	.139	.144	3.53	3.66	Dia.
P	.255	.300	6.48	7.62	
Q	.170	.210	4.32	5.33	
R	.080	.110	2.03	2.79	

Microsemi Catalog Number	Industry Part Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
UF10060		600V	600V

- Ultrafast Rectifier
- VRRM 600V
- 100 Amperes Avg.
- 175°C Junction temperature
- $t_{rr} = 80\text{ns max.}$

Electrical Characteristics		
Average Forward Current	$I_F(AV)$ 100 Amps	$T_C = 113^\circ\text{C}$ , square wave
Maximum Surge Current	$I_{FSM}$ 600 Amps	8.3ms, half sine $T_J = 175^\circ\text{C}$
Max. Peak Forward Voltage	$V_{FM}$ 1.40 Volts	$I_{FM} = 100\text{A}$ , $T_J = 25^\circ\text{C}$
Typ. Peak Forward Voltage	$V_{FM}$ 1.20 Volts	$I_{FM} = 100\text{A}$ , $T_J = 175^\circ\text{C}$
Typ. Peak Reverse Current	$I_{RM}$ 250uA	VRRM, $T_J = 125^\circ\text{C}$
Max. Peak Reverse Current	$I_{RM}$ 5uA	VRRM, $T_J = 25^\circ\text{C}$
Max. Reverse Recovery Time	$t_{rr}$ 65ns	1/2A, 1A, 1/4A, $T_J = 25^\circ\text{C}$
Typical Junction Capacitance	$C_J$ 95 pF	VR = 10.0V, $T_J = 25^\circ\text{C}$
*Pulse test: Pulse width 300 $\mu\text{sec}$ Duty cycle 2%		

Thermal and Mechanical Characteristics		
Storage temp range	$T_{STG}$	-55°C to 175°C
Operating junction temp range	$T_J$	-55°C to 175°C
Max. thermal resistance	$R_{\theta JC}$	0.40°C/W Junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	0.25°C/W Case to sink
Mounting torque		8-10 inch pounds maximum (6-32 screw)
Weight		.22 ounces (6.2 grams) typical

**SCOTTSDALE**  
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05-07-07 Rev. 3

# UF10060

Figure 1  
Typical Forward Characteristics

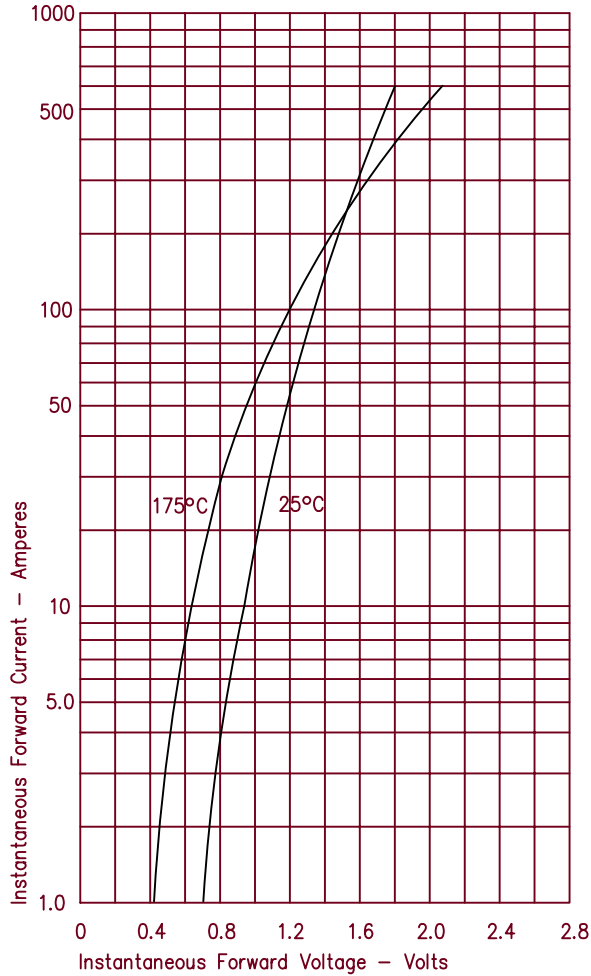


Figure 3  
Typical Junction Capacitance

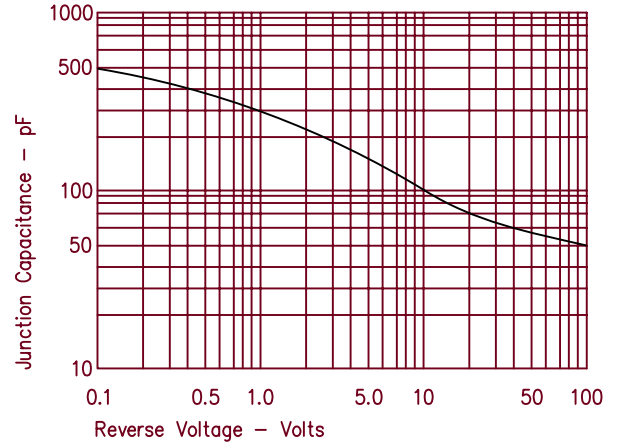


Figure 4  
Forward Current Derating

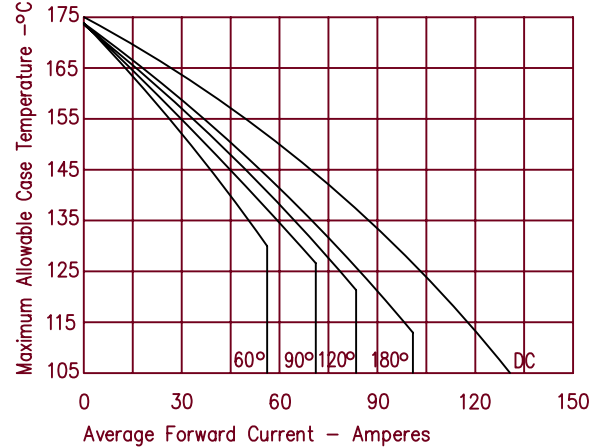


Figure 2  
Typical Reverse Characteristics

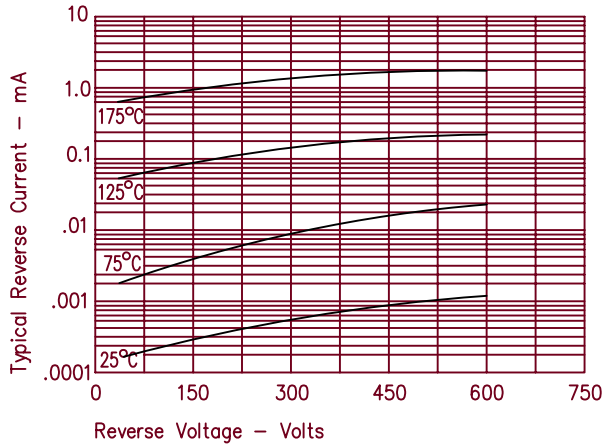


Figure 5  
Maximum Forward Power Dissipation

