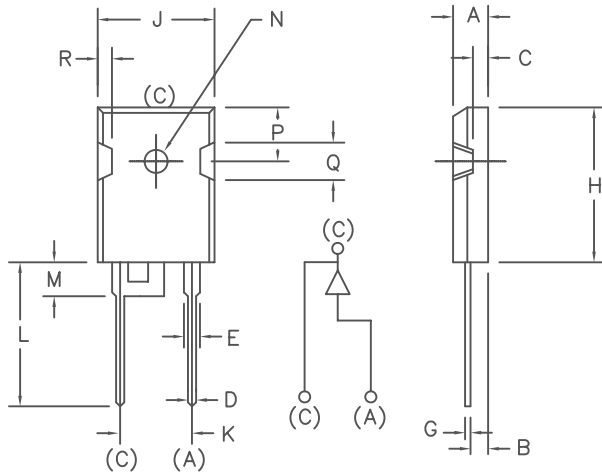


100 Amp Ultrafast Rectifier UF10160



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
UF10160		600V	600V

- Ultrafast Rectifier
- VRRM 600V
- 100 Amperes Avg.
- 175°C Junction temperature
- $t_{rr} = 65\text{ns max.}$

Electrical Characteristics		
Average Forward Current	$I_F(AV)$ 100 Amps	$T_C = 110^\circ\text{C}$, 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} 1.80 Volts	$I_{FM} = 100\text{A}$, $T_J = 25^\circ\text{C}$
Typ. Peak Forward Voltage	V_{FM} 1.25 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} 10uA	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 175 pF	VR = 10.0V, $T_J = 25^\circ\text{C}$
*Pulse test: Pulse width 300 μsec 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 (#6 screw)
Weight		.22 ounces (6.2 grams) typical

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05-07-07 Rev. 4

UF10160

Figure 1
Typical Forward Characteristics

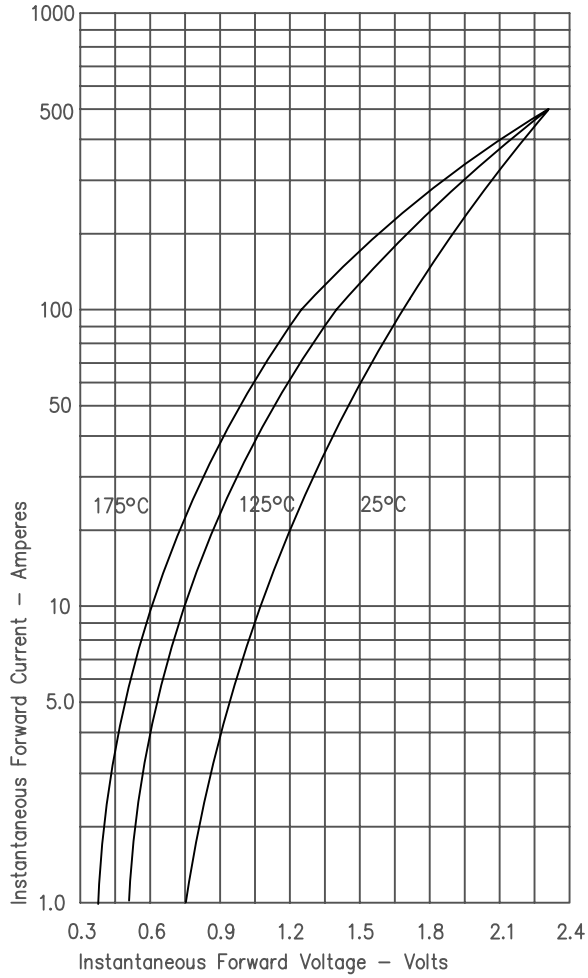


Figure 3
Typical Junction Capacitance

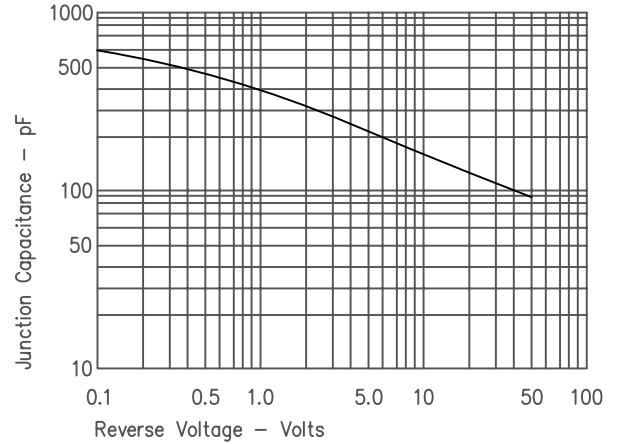


Figure 4
Forward Current Derating

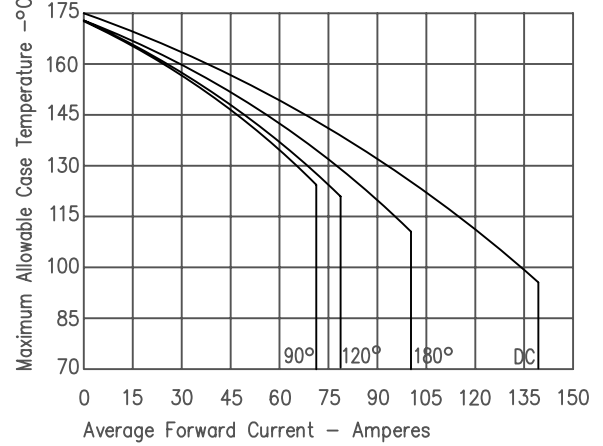


Figure 2
Typical Reverse Characteristics

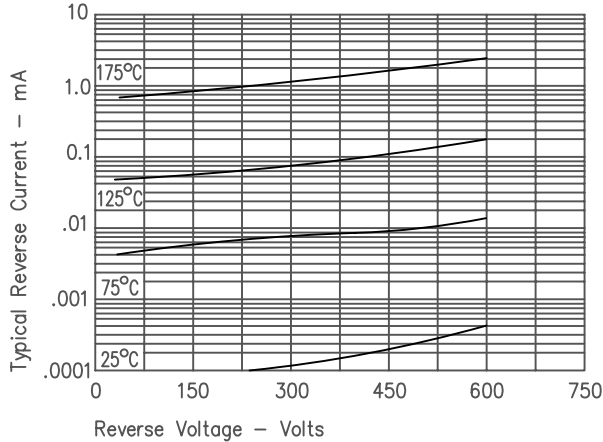


Figure 5
Maximum Forward Power Dissipation

