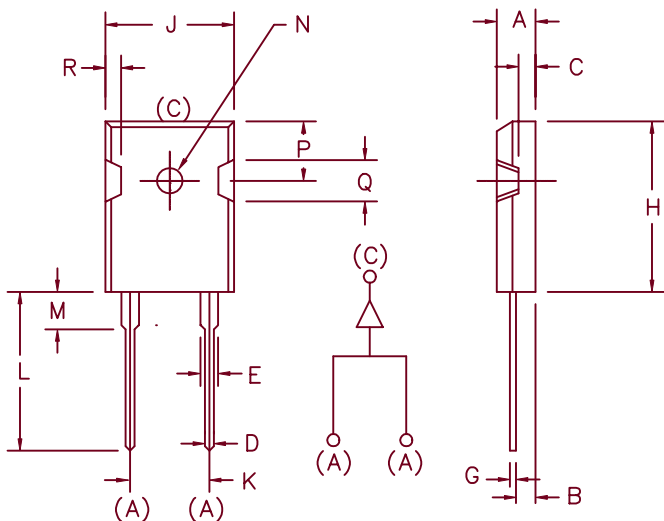


100 Amp Ultrafast Rectifier SSUM10060



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	

Lead frame plating - 85%Sn/15%Pb, 300-800 micro inches
Leads solder dipped with 63%Sn/37%Pb solder.

Microsemi Catalog
Number

SSUM10060

Industry
Part Number

Working Peak
Reverse Voltage

600V

Repetitive Peak
Reverse Voltage

600V

- Soft Recovery Ultrafast Rectifier
- VRRM 600V
- 100 Amperes Avg.
- 175°C Junction temperature
- $t_{rr} = 50\text{ns max.}$

Electrical Characteristics

Average Forward Current
Maximum Surge Current
Max. Peak Forward Voltage
Typ. Peak Forward Voltage
Typ. Peak Reverse Current
Max. Peak Reverse Current
Max. Reverse Recovery Time
Typical Junction Capacitance

$I_{F(AV)}$ 100 Amps
 I_{FSM} 600 Amps
 V_{FM} 1.70 Volts
 V_{FM} 1.40 Volts
 I_{RM} 200uA
 I_{RM} 5uA
 t_{rr} 50ns
 C_J 200 pF

$T_C = 111^\circ\text{C}$, square wave
8.3ms, half sine $T_J = 175^\circ\text{C}$
 $I_{FM} = 100\text{A}$, $T_J = 25^\circ\text{C}$
 $I_{FM} = 100\text{A}$, $T_J = 175^\circ\text{C}$
 V_{RRM} , $T_J = 125^\circ\text{C}$
 V_{RRM} , $T_J = 25^\circ\text{C}$
1/2A, 1A, 1/4A, $T_J = 25^\circ\text{C}$
 $V_R = 10.0\text{V}$, $T_J = 25^\circ\text{C}$

*Pulse test: Pulse width 300 μsec Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temp range
Operating junction temp range
Max. thermal resistance per leg
Max. thermal resistance per pkg
Mounting torque
Weight

T_{STG}
 T_J
 $R_{\theta JC}$
 $R_{\theta JS}$

-55°C to 175°C
 -55°C to 175°C
 0.40°C/W Junction to case
 0.25°C/W Junction to sink
8-10 inch pounds maximum (6-32 screw)
.22 ounces (6.2 grams) typical



800 Hoyt Street
Broomfield, CO. 80020
PH: (303) 469-2161
FAX: (303) 466-3775
www.microsemi.com

11-12-03 Rev. 0

SSUM10060

Figure 1
Typical Forward Characteristics

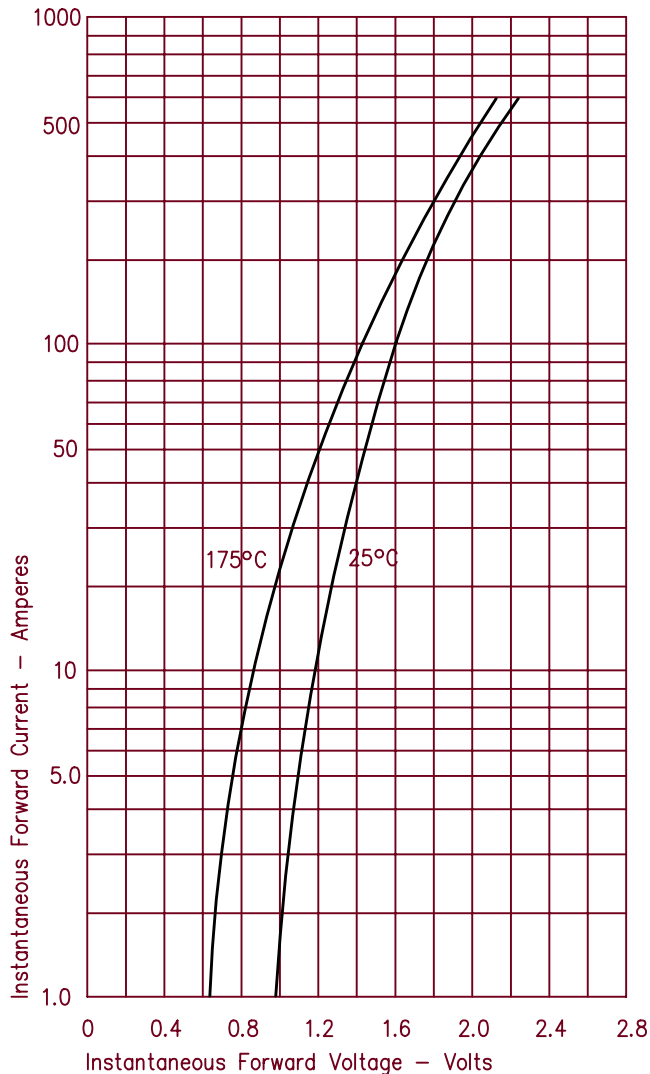


Figure 3
Typical Junction Capacitance

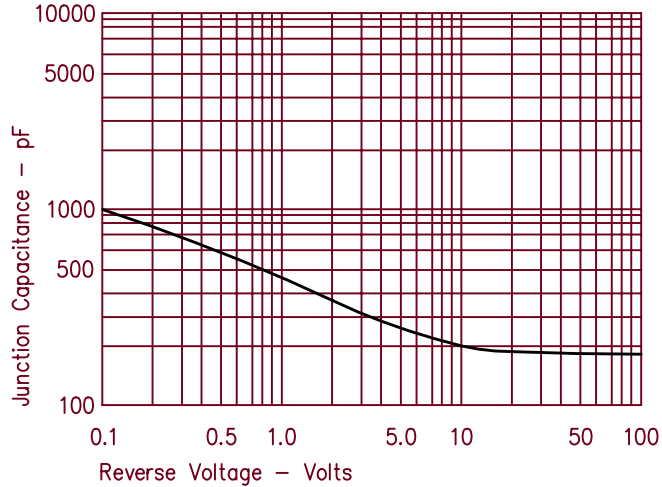


Figure 4
Forward Current Derating

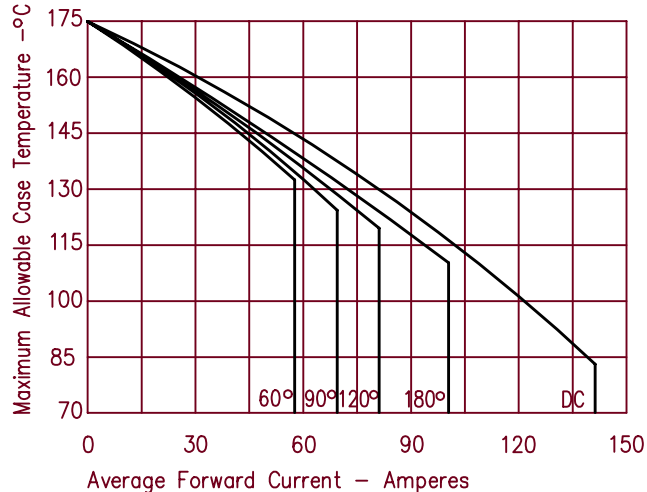


Figure 2
Typical Reverse Characteristics

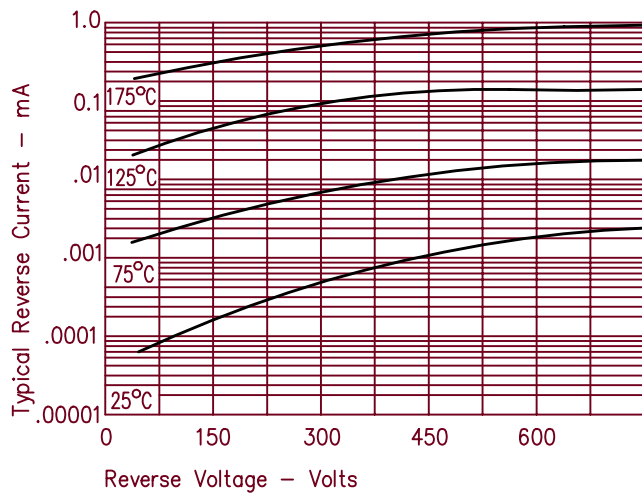


Figure 5
Maximum Forward Power Dissipation

