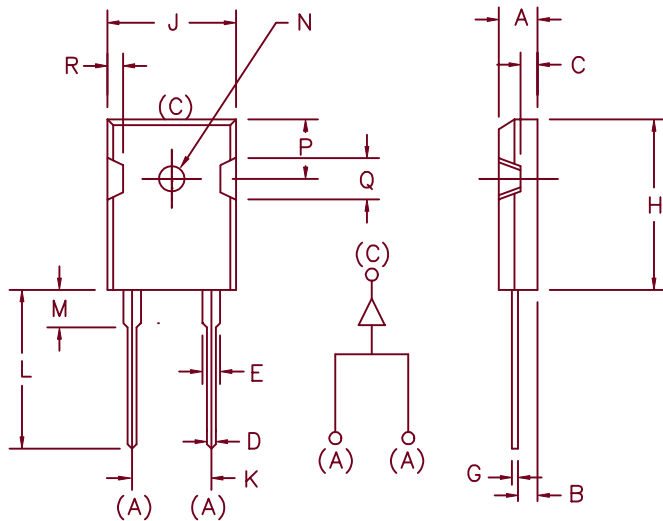


100 Amp Ultrafast Rectifier SSUM10060



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} = 50ns max.

Electrical Characteristics

Average Forward Current	$I_F(AV)$ 100 Amps	$T_C = 111^\circ C$, square wave
Maximum Surge Current	I_{FSM} 600 Amps	8.3ms, half sine $T_J = 175^\circ C$
Max. Peak Forward Voltage	V_{FM} 1.70 Volts	$I_{FM} = 100A$, $T_J = 25^\circ C$
Typ. Peak Forward Voltage	V_{FM} 1.40 Volts	$I_{FM} = 100A$, $T_J = 175^\circ C$
Typ. Peak Reverse Current	I_{RM} 200uA	VRRM, $T_J = 125^\circ C$
Max. Peak Reverse Current	I_{RM} 5uA	VRRM, $T_J = 25^\circ C$
Max. Reverse Recovery Time	t_{rr} 50ns	1/2A, 1A, 1/4A, $T_J = 25^\circ C$
Typical Junction Capacitance	C_J 200 pF	VR = 10.0V, $T_J = 25^\circ C$

*Pulse test: Pulse width 300 μ 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 per leg	$R_{\theta JC}$	0.40°C/W Junction to case
Max. thermal resistance per pkg	$R_{\theta JS}$	0.25°C/W Junction to sink
Mounting torque		8-10 inch pounds maximum (6-32 screw)
Weight		.22 ounces (6.2 grams) typical

SSUM10060

Figure 1
Typical Forward Characteristics

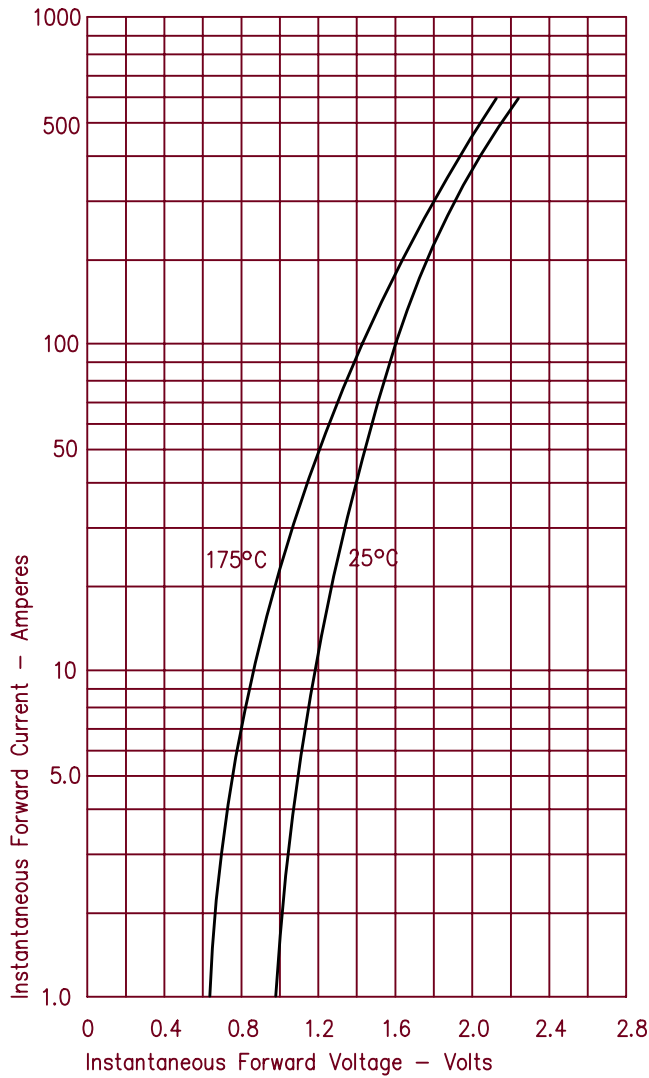


Figure 3
Typical Junction Capacitance

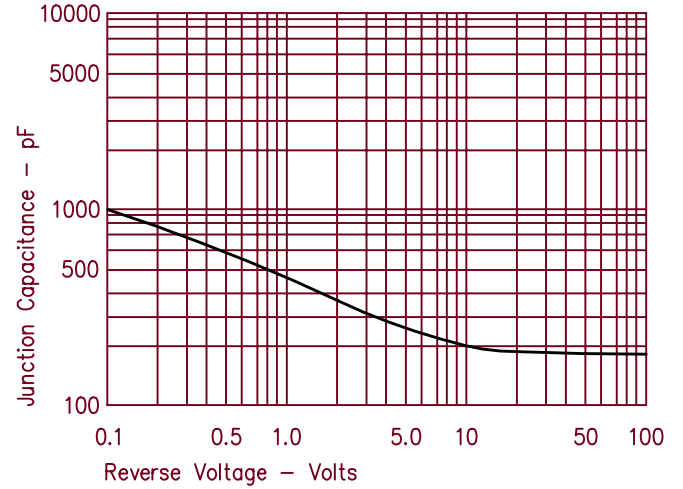


Figure 4
Forward Current Derating

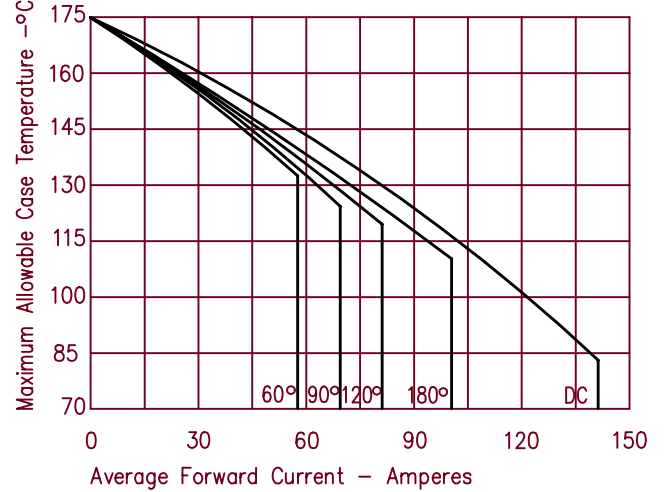


Figure 2
Typical Reverse Characteristics

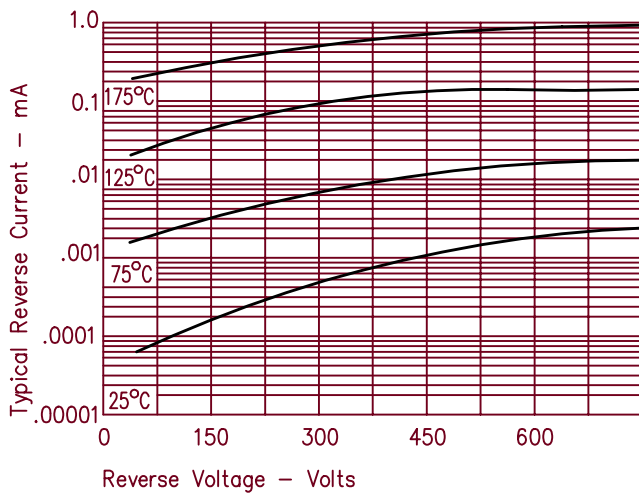


Figure 5
Maximum Forward Power Dissipation

