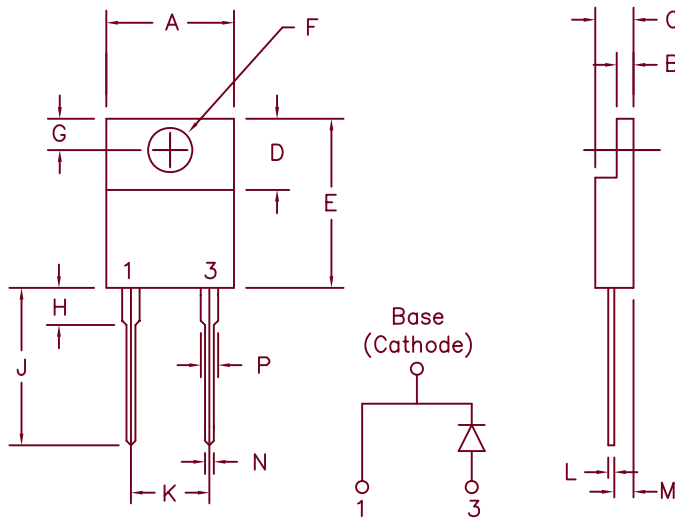


Ultra Fast Recovery Rectifiers UF1630 — UF1650



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.390	.415	9.91	10.54	
B	.045	.055	1.14	1.40	
C	.180	.190	4.57	4.83	
D	.245	.260	6.22	6.60	
E	.550	.650	13.97	16.51	
F	.139	.155	3.53	3.94	Dia.
G	.100	.120	2.54	3.05	
H	---	.250	---	6.35	
J	.500	.580	12.70	14.73	
K	.190	.210	4.83	5.33	
L	.014	.025	0.35	0.63	
M	.080	.115	2.03	2.92	
N	.028	.038	0.71	0.96	
P	.045	.055	1.14	1.40	

Similar to TO-220AC

Microsemi Catalog
Number

UF1630
UF1640
UF1650

Repetitive Peak
Reverse Voltage

300V
400V
500V

Transient Peak
Reverse Voltage

300V
400V
500V

- Ultra Fast Recovery Rectifier
- 175°C Junction Temperature
- V_{RRM} 300 TO 500 Volts
- 16 Amps current rating
- t_{RR} 50 nsec maximum

Electrical Characteristics

Average forward current
Maximum surge current
Max peak forward voltage
Max reverse recovery time
Max peak reverse current
Typical junction capacitance

$I_F(AV)$ 16 Amps
 I_{FSM} 200 Amps
 V_{FM} 1.2 Volts
 t_{RR} 50 ns
 I_{RM} 10 μ A
 C_J 45pF

$T_C = 138^\circ\text{C}$, Square wave, $R_{\theta JC} = 2^\circ\text{C/W}$
8.3ms, half sine, $T_J = 175^\circ\text{C}$
 $I_{FM} = 16\text{A}; T_J = 25^\circ\text{C}^*$
1/2A, 1A, 1/4A, $T_J = 25^\circ\text{C}$
 $V_{RRM}, T_J = 25^\circ\text{C}$
 $V_R = 10\text{V}, T_J = 25^\circ\text{C}$

*Pulse test: Pulse width 300 μ sec, Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temp range
Operating junction temp range
Max thermal resistance
Max mounting torque
Weight

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

-55°C to 175°C
 -55°C to 175°C
 2.0°C/W Junction to Case
10-15 inch pounds
0.08 ounces (2.3 grams) typical



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05-07-07 Rev. 2

UF1630 — UF1650

Figure 1
Typical Forward Characteristics

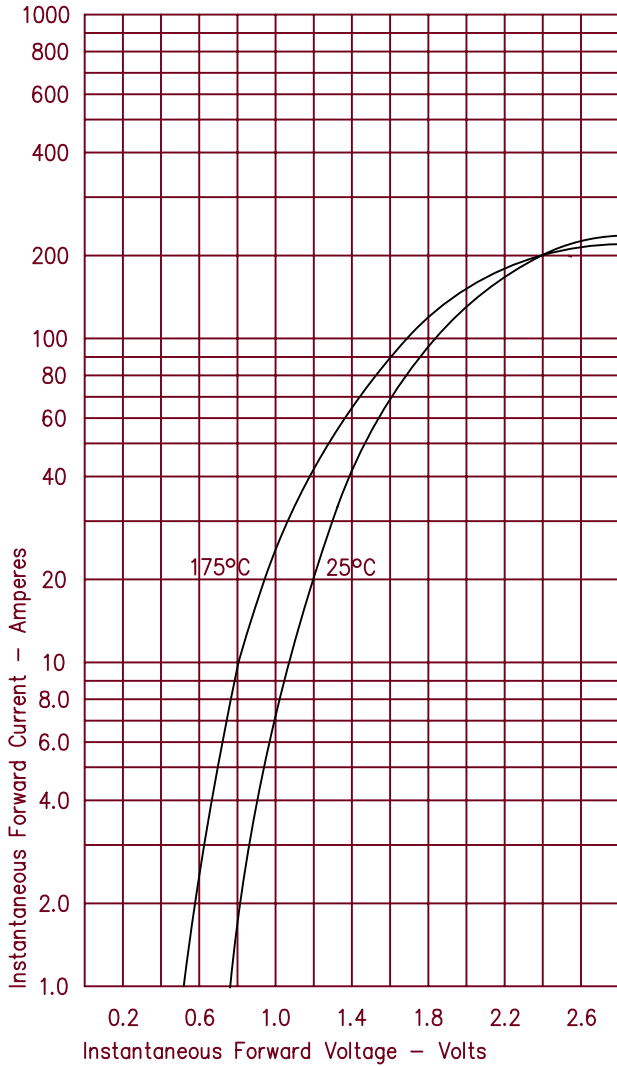


Figure 3
Typical Junction Capacitance

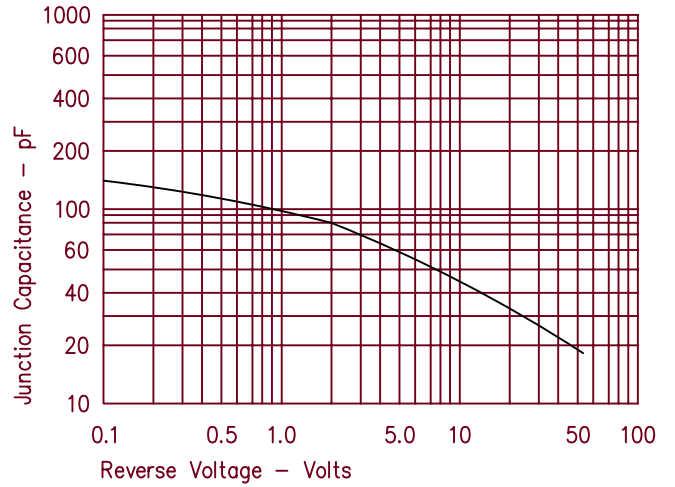


Figure 4
Forward Current Derating

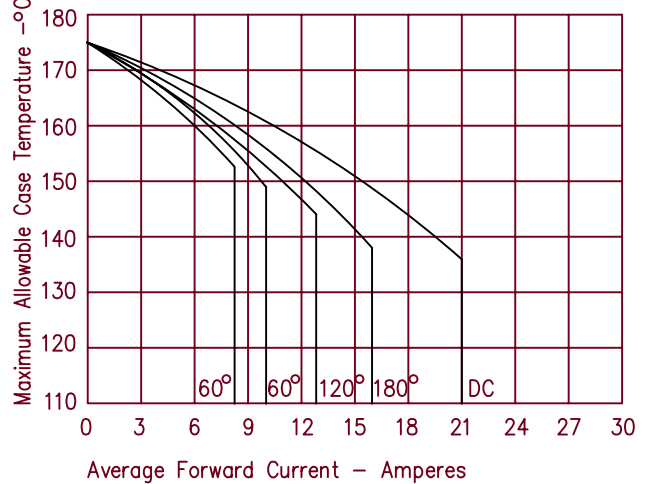


Figure 2
Typical Reverse Characteristics

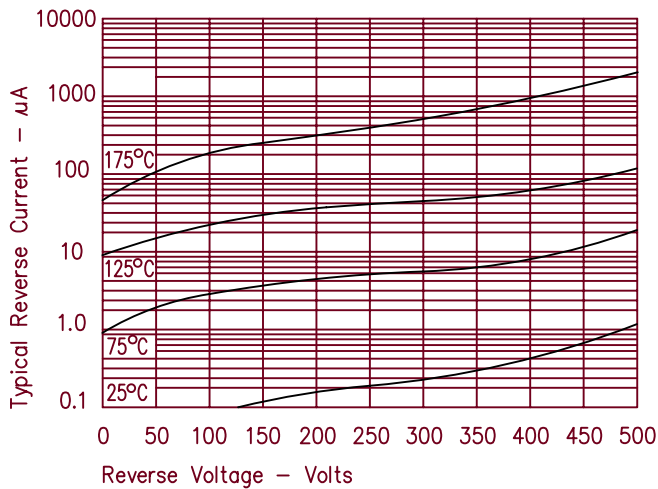


Figure 5
Maximum Forward Power Dissipation

