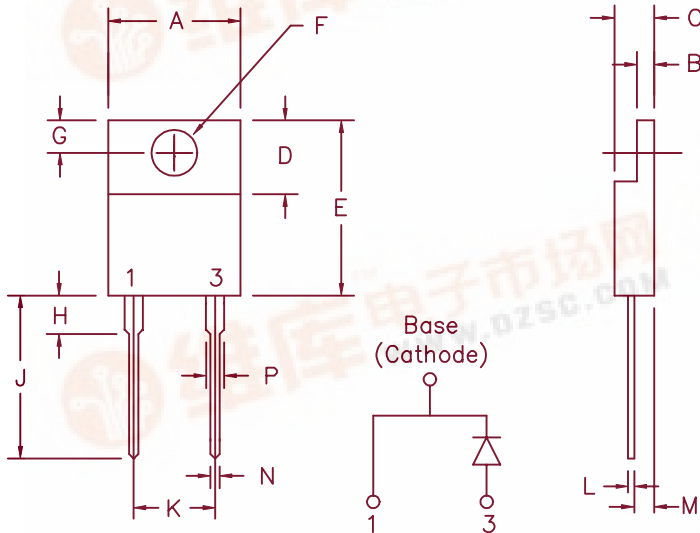


Ultra Fast Recovery Rectifiers

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	Repetitive Peak Reverse Voltage	Transient Peak Reverse Voltage
UF1630	300V	300V
UF1640	400V	400V
UF1650	500V	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	$I_F(AV)$ 16 Amps	$T_C = 138^\circ C$, Square wave, $R_{\theta JC} = 2^\circ C/W$
Maximum surge current	I_{FSM} 200 Amps	8.3ms, half sine, $T_J = 175^\circ C$
Max peak forward voltage	V_{FM} 1.2 Volts	$I_{FM} = 16A: T_J = 25^\circ C^*$
Max reverse recovery time	t_{RR} 50 ns	1/2A, 1A, 1/4A, $T_J = 25^\circ C$
Max peak reverse current	I_{RM} 10 μA	$V_{RRM}, T_J = 25^\circ C$
Typical junction capacitance	C_J 45pF	$VR = 10V, T_J = 25^\circ C$

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

Thermal and Mechanical Characteristics

Storage temp range	T_{STG}	$-55^\circ C$ to $175^\circ C$
Operating junction temp range	T_J	$-55^\circ C$ to $175^\circ C$
Max thermal resistance	$R_{\theta JC}$	$2.0^\circ C/W$ Junction to Case
Max mounting torque		10-15 inch pounds
Weight		0.08 ounces (2.3 grams) typical



UF1630 — UF1650

Figure 1
Typical Forward Characteristics

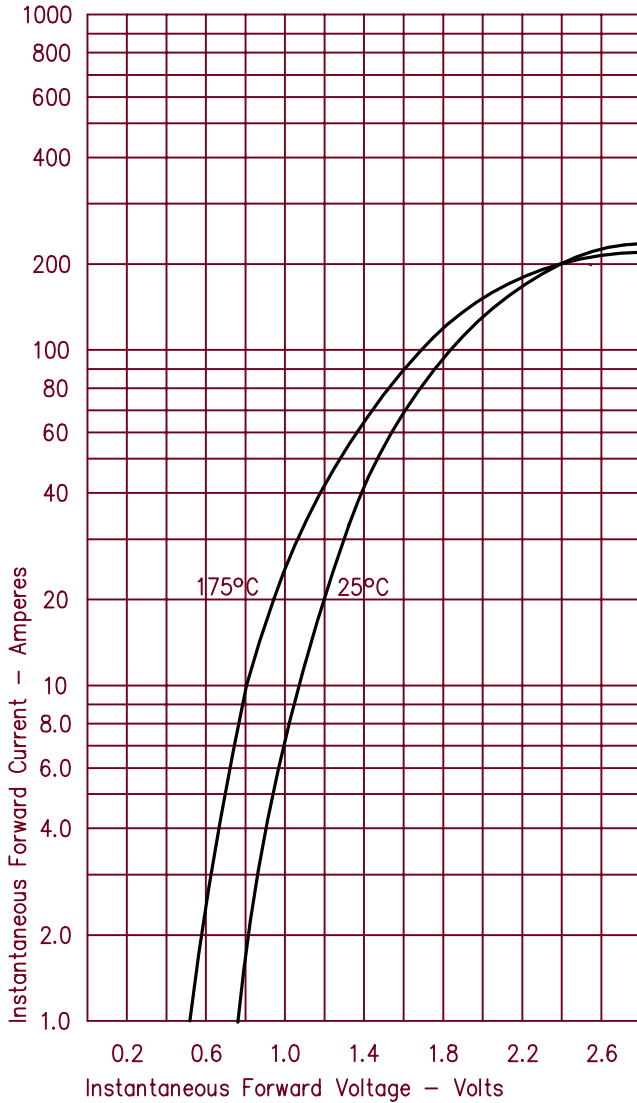


Figure 3
Typical Junction Capacitance

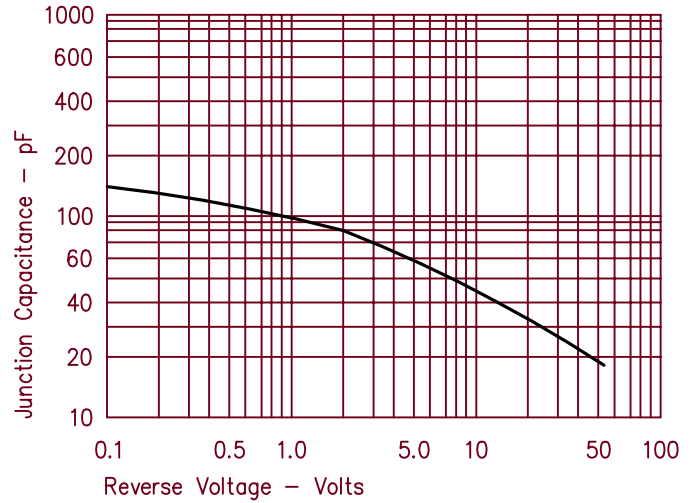


Figure 4
Forward Current Derating

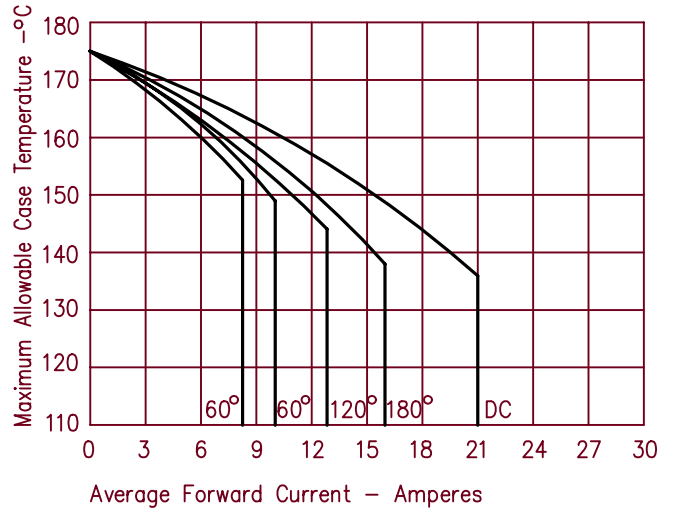


Figure 2
Typical Reverse Characteristics

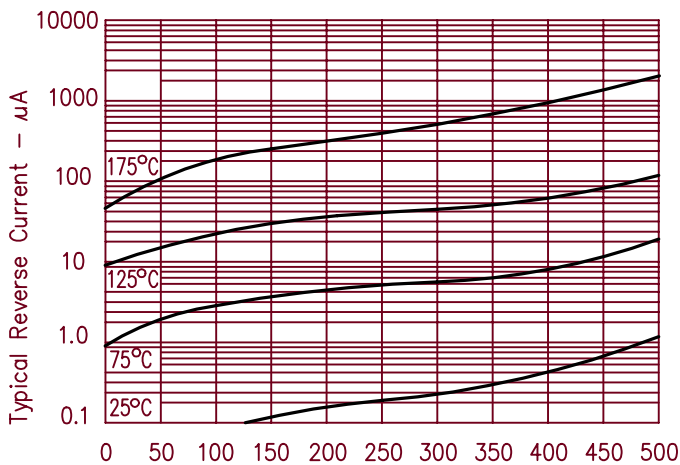


Figure 5
Maximum Forward Power Dissipation

