Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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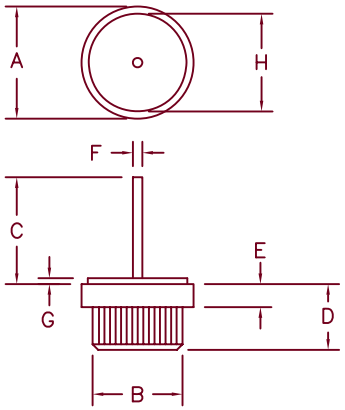
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Ultra Fast Recovery Rectifier
UFR30PF & UFR31PF



Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
A	.590	.630	15.0	16.0	Dia.
B	.499	.510	12.6	13.0	Dia.
C	.600	——	15.2	——	
D	.350	.370	8.90	9.40	
E	.090	.130	2.28	3.30	
F	.045	.053	1.14	1.35	Dia.
G	.030	.035	.762	.900	
H	.500	.510	12.7	13.0	Dia.

Microsemi Catalog Number	Repetitive Peak Reverse Voltage	Transient Peak Reverse Voltage
UFR3010PF*	100V	100V
UFR3015PF*	150V	150V
UFR3020PF*	200V	200V
UFR3130PF*	300V	300V
UFR3140PF*	400V	400V
UFR3150PF*	500V	500V

*Add Suffix R for Reverse Polarity

- Ultra Fast Recovery
- 175°C Junction Temperature
- t_{RR} 35 to 50 nsec Maximum
- High Reliability
- 30 Amps Current Rating
- V_{RRM} 100 to 500V

Electrical Characteristics

		UFR30PF	UFR31PF	
Average forward current	$I_{F(AV)}$	30A	30A	Square wave
Case Temperature (standard polarity)	T_C	148°C	139°C	$R_{\theta JC}$ = 1.0°C/W
Case Temperature (reverse polarity)	T_C	127°C	110°C	$R_{\theta JC}$ = 1.8°C/W
Maximum surge current	I_{FSM}	500A	400A	8.3 ms, half sine, T_J = 175°C
Max peak forward voltage	V_{FM}	.975V	1.25V	I_{FM} = 30A: T_J = 25°C*
Max reverse recovery time	t_{RR}	35 ns	50 ns	1/2A, 1A, 1/4A, T_J = 25°C
Max peak reverse current	I_{RM}	——1.0 mA——		V_{RRM}, T_J = 125°C
Max peak reverse current	I_{RM}	—— 15 µA ——		V_{RRM}, T_J = 25°C
Typical Junction Capacitance	C_J	140 pF	115 pF	V_R = 10V, f = 1Mhz, T_J = 25°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 (standard polarity)	$R_{\theta JC}$	1.0°C/W
Max thermal resistance (reverse polarity)	$R_{\theta JC}$	1.8°C/W
Typical thermal resistance	$R_{\theta CS}$	0.4°C/W
Weight		0.3 ounce (9.0 grams) typical

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UFR30PF

Figure 1
Typical Forward Characteristics

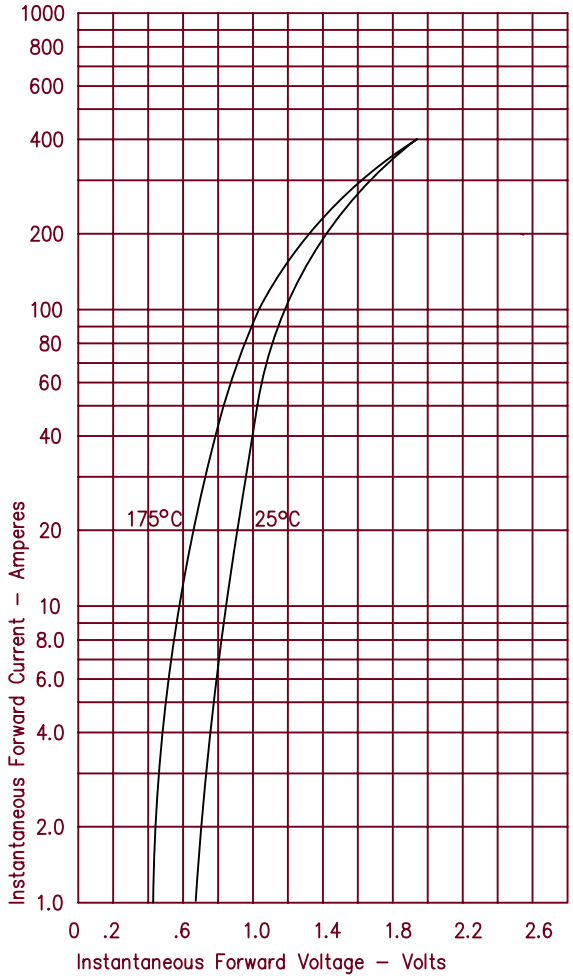

Figure 2
Typical Reverse Characteristics

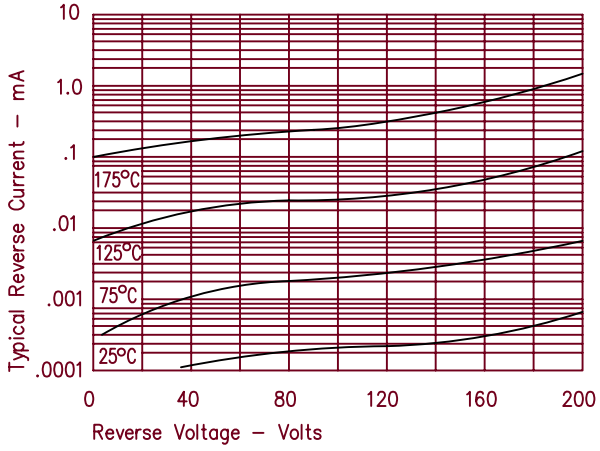

Figure 3
Typical Junction Capacitance

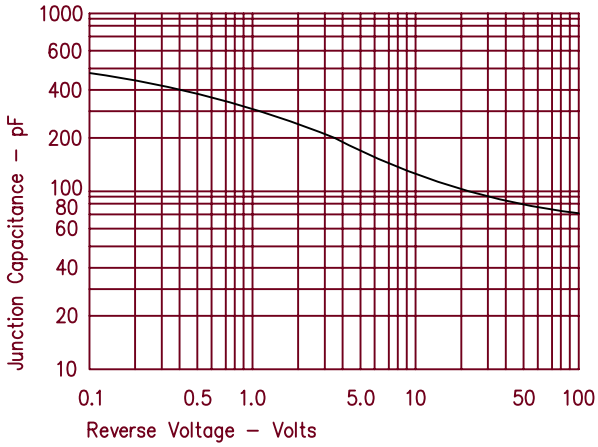

Figure 4
Forward Current Derating – Standard Polarity

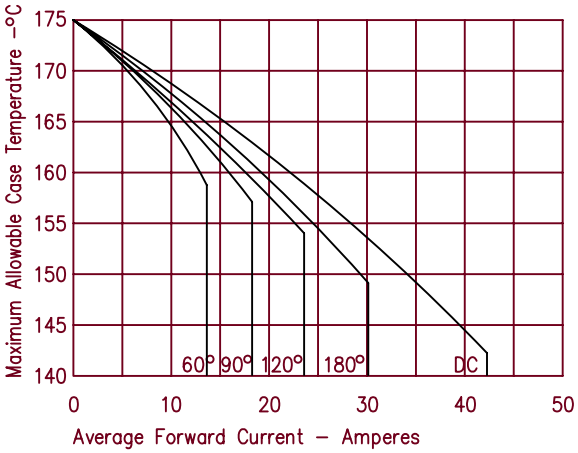

Figure 5
Maximum Forward Power Dissipation – Standard Polarity

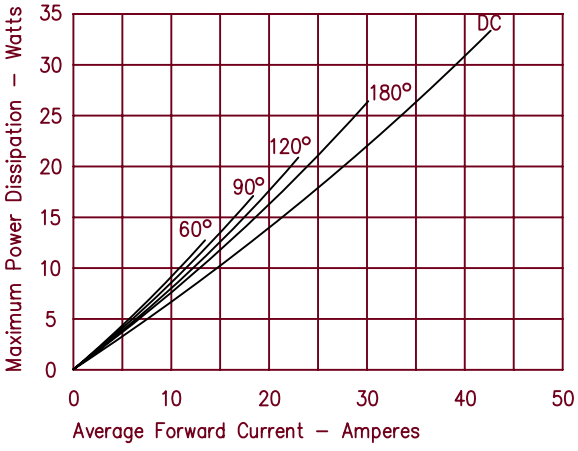

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Figure 6
Forward Current Derating – Reverse Polarity

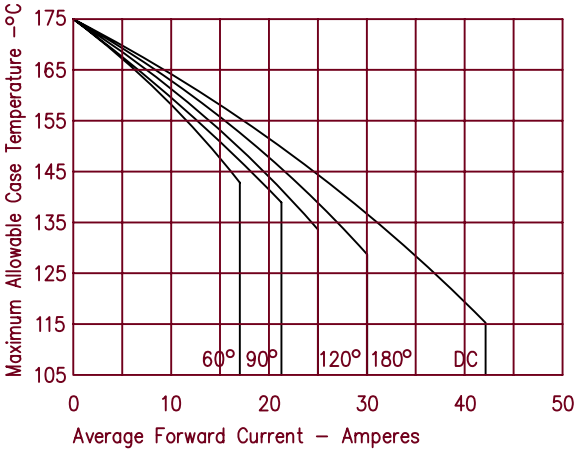
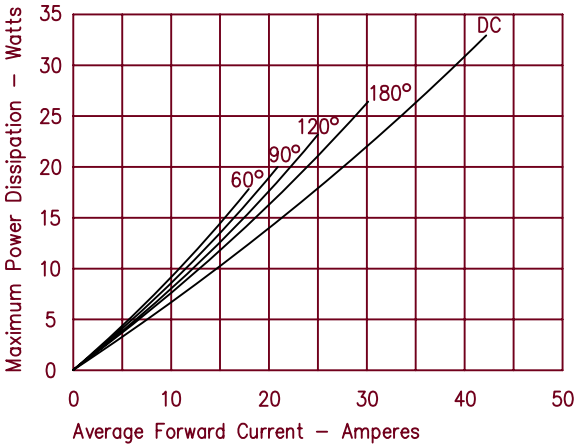


Figure 7
Maximum Forward Power Dissipation – Reverse Polarity



UFR31PF

Figure 1
Typical Forward Characteristics

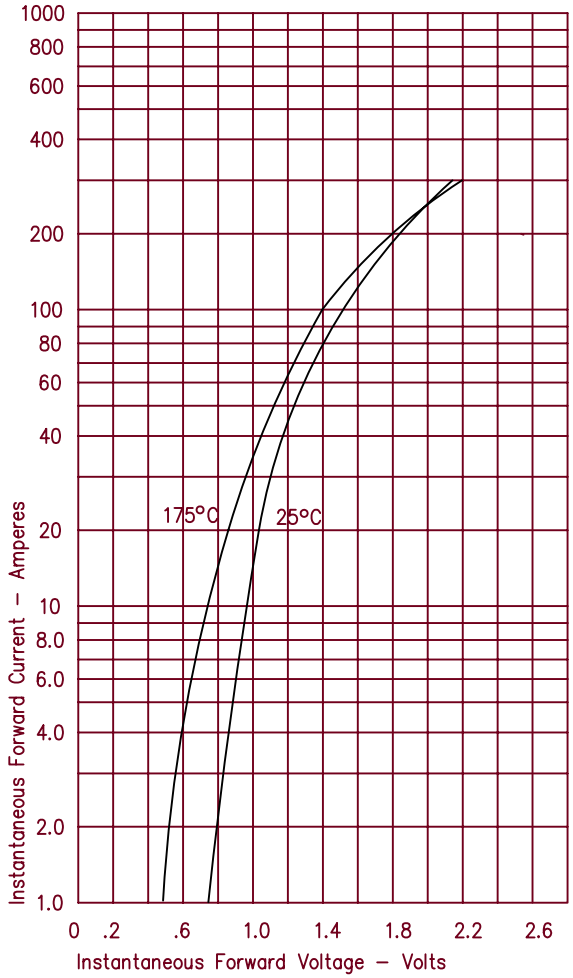


Figure 2
Typical Reverse Characteristics

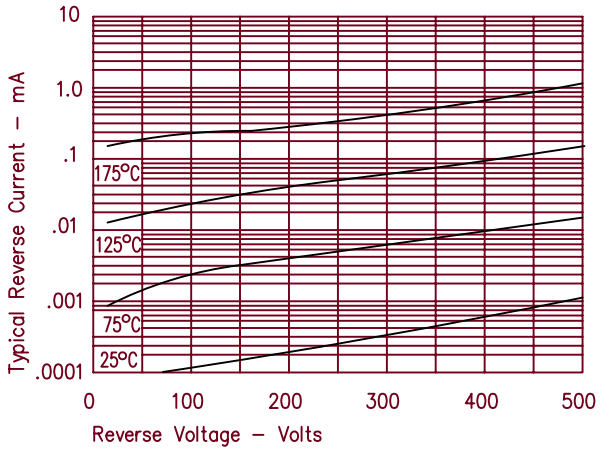


Figure 3
Typical Junction Capacitance

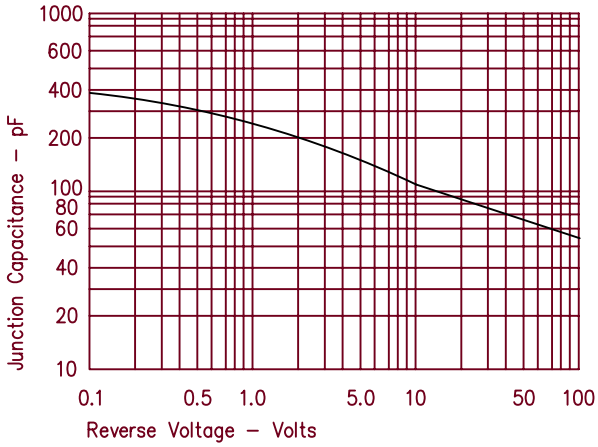


Figure 4
Forward Current Derating – Standard Polarity

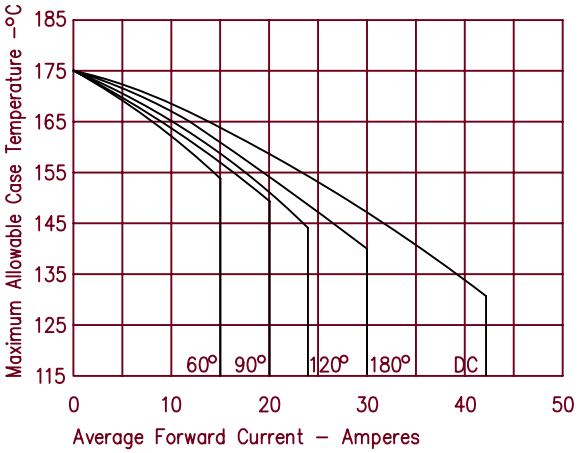


Figure 5
Maximum Forward Power Dissipation – Reverse Polarity

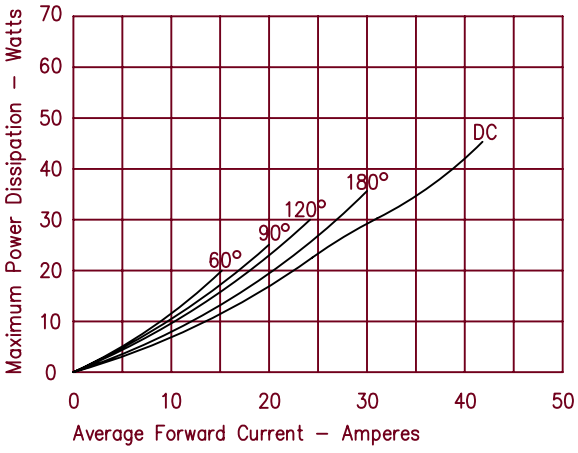


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Figure 6
Forward Current Derating – Reverse Polarity

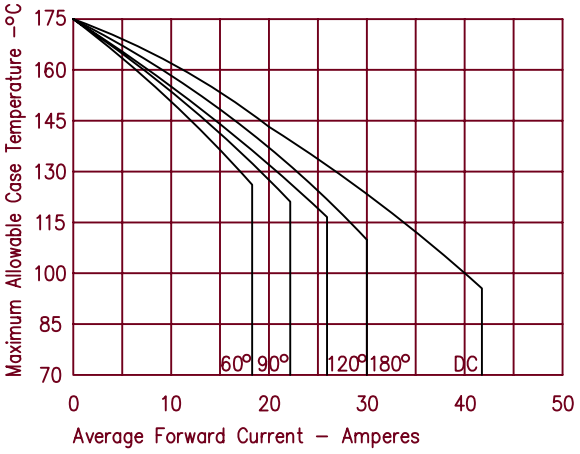

Figure 7
Maximum Forward Power Dissipation – Standard Polarity