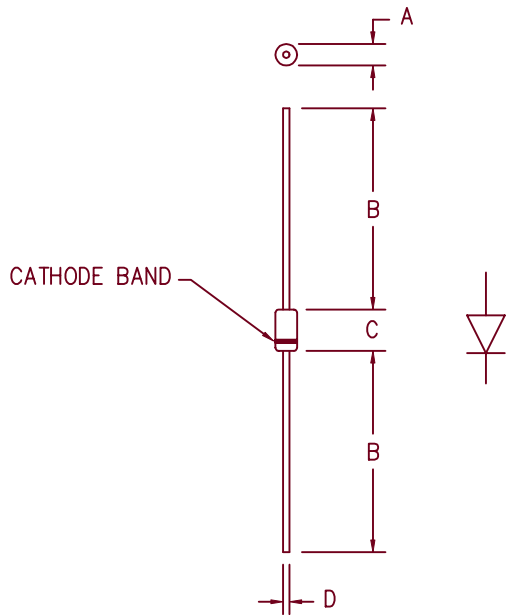


# Ultra Fast Recovery Rectifiers UF510 — UF520



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.188	.260	4.78	6.50	Dia.
B	1.00	---	25.4	---	
C	.285	.375	7.24	9.52	
D	.046	.056	1.17	1.42	Dia.

PLASTIC D0201AD

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
UF510	100V	100V
UF515	150V	150V
UF520	200V	200V

- Ultra Fast Recovery
- 175°C Junction Temperature
- VRRM 100 to 200 Volts
- 5 Amp Current Rating
- $t_{RR}$  30 ns Max.

## Electrical Characteristics

Average forward current	$I_{F(AV)}$ 5.0 Amps	$T_A = 122^\circ\text{C}$ , Square wave, $R_{\theta JL} = 11^\circ\text{C/W}$ , $L = 1/8''$
Average forward current	$I_{F(AV)}$ 5.0 Amps	$T_A = 105^\circ\text{C}$ , Square wave, $R_{\theta JL} = 14.7^\circ\text{C/W}$ , $L = 3/8''$
Maximum surge current	$I_{FSM}$ 175 Amps	8.3ms, half sine, $T_J = 175^\circ\text{C}$
Max peak forward voltage	$V_{FM}$ .95 Volts	$I_{FM} = 5.0\text{A}$ ; $T_J = 25^\circ\text{C}^*$
Max reverse recovery time	$t_{RR}$ 30 ns	1/2A, 1A, 1/4A, $T_J = 25^\circ\text{C}$
Max peak reverse current	$I_{RM}$ 10 $\mu\text{A}$	$V_{RRM}$ , $T_J = 25^\circ\text{C}$
Typical junction capacitance	$C_J$ 58 pF	$V_R = 10\text{V}$ , $T_J = 25^\circ\text{C}$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

## Thermal and Mechanical Characteristics

Storage temperature range	$T_{STG}$	$-55^\circ\text{C}$ to $175^\circ\text{C}$
Operating junction temp range	$T_J$	$-55^\circ\text{C}$ to $175^\circ\text{C}$
Maximum thermal resistance	$L = 1/8''$ $R_{\theta JL}$	11°C/W Junction to Lead
	$L = 3/8''$ $R_{\theta JL}$	14.7°C/W Junction to Lead
Weight		.011 ounces (0.34 grams) typical

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# UF510 – UF520

Figure 1  
Typical Forward Characteristics

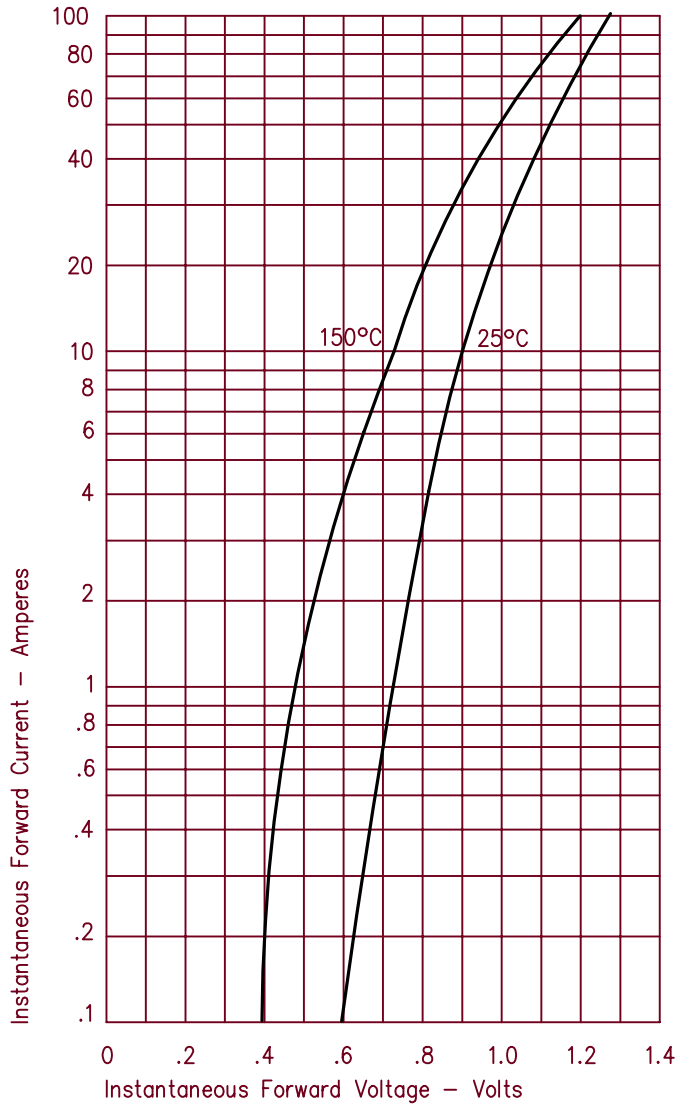


Figure 3  
Typical Junction Capacitance

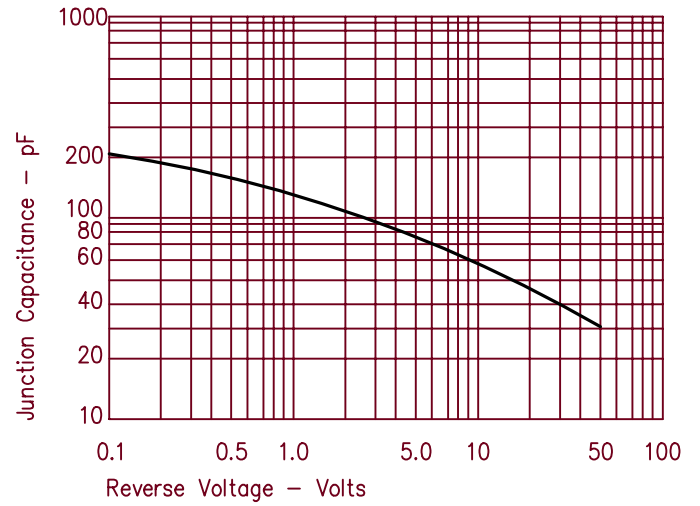


Figure 2  
Typical Reverse Characteristics

